



# VHF-UHF DIGEST

1973  
NOVEMBER



**CHECK  
FOR THOSE  
METEORS!**

H. Hayes

# **publishers' notes...**

**WTFDA HEADQUARTERS, P.O. BOX 163, DEERFIELD, IL 60015 USA**

**WAS IT JUST A COINCIDENCE**, or did WTFDA have advance information in planning the October cover? Unidentified Flying Objects made headlines all across America. Are DXers receiving messages from outer space or just reruns of the "Invaders"? Keep listening, watching and tuning... You may not hear any UFO's, but you're bound to catch some DX!

**METEOR SCATTER DX TEST...** WTFDA member, Bill Heusmann, has informed us that he has arranged for special meteor scatter DX test on KFMH. The test is set for the peak of the Geminids shower, December 12th. KFMH operated on 99.7 and will broadcast the test from 2300 to 0200 (DEC 13) CST. The station's ID and other information will be repeated continuously. KFMH will issue verification letters for all correct reports. Send all reports to KFMH, Bill Heusmann, Box 116, Muscatine, Iowa 52761.

**MORE METEOR SCATTER INFO...** Leonids: November 14-18 (unknown burst rate due to variations). Geminids: December 10-14 (maximum of about 70 bursts per hour). Ursids: December 22 (usually an interesting shower). Quadrantids: January 1-4 (maximum of about 50 bursts per hour). For a more detailed listing, see the latest edition of the ARRL VHF MANUAL... Be sure to catch part II of Bob Cooper's "meteor scatter application notes", in this issue.

**WTFDA'S BRUCE ELVING IS ANARC "DX MAN OF THE YEAR"...** Bruce was given ANARC's top award for his devotion to helping FM DXers, through his FCC FM News column (in the VUD) and the FM ATLAS. This is the first time that a WTFDA member has received the award. Our congratulations go out to Bruce for a well deserved award!

**COMET KOHOUTEK...** Some DXers have started to wonder whether Comet Kohoutek will cause an increase in meteor scatter. Even though it is billed as "The Comet of the Century", NASA informs us that it will not pass close enough to the earth to increase meteoric activity.

**NOTES OF NOTE...** The availability of VUD boxers is now unknown. For the moment, we have lost contact with our supplier. We hope to resolve the problem in the near future and will pass along further word as-soon-as-possible... For the latest news on the 1974 WTFDA Convention, see page 26 of this issue... Another reminder that third class postage memberships are no longer being accepted. See the back cover of this issue for details. ... Terry Colgan reports that close to one hundred member survey forms have been received. If you haven't yet mailed yours, please do so. It's better late than never!... WTFDA still needs an activities chairman. This really is an interesting position for the member who wants to show an interest. It's a shame that so many members just sit back and look at the work of others. There's more (or should be) to being a "member" than just paying dues... CDX column editor, Don Ruland, has been voted to the WTFDA board-of-directors. This again brings the BoD to its full compliment of five... FCC-TV and TV-CCI will return next month... This year's tropo season seems to have been a poor one, but several out of season Es openings did occur. Details in next month's DX columns...

73, Gary and Morrie



# TECHNI-

# CORNER

Conducted by:

David T. Janowiak  
3661 South 46 Street  
Greenfield, Wisc.  
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## TURN YOUR ATTENTION TO ALLIANCE ANTENNA ROTATORS PART III

### T-45:

This popular, manual model functions like the K-22, but it also provides constant position indication. Figure 5 shows the bar control on the top and a horizontally-aligned compass-scale and pointer on the front of the control box. Five-wire cable is needed for this \$25 (wholesale) rotator.



FIGURE 5. T-45 CONTROL BOX

As with the K-22, depressing right side of the bar causes motor rotation by connecting the motor starting capacitor to a motor winding. (With all Alliance motors, the ac capacitor provides the required motor "breakaway" torque needed to overcome the inertia of a heavy, stationary load.) In addition, the needle pointer in the control box "follows" motor rotation and traverses from left to right. Depressing the left side of the bar reverses motor rotation and pointer direction. Obviously, no end of travel light is needed. Operation is silent, except at the extreme end of travel when a very quite buzz is sometimes heard, probably from the pointer mechanism. Releasing the bar stops motor rotation immediately.

Since agreement between actual antenna direction and the indicator is fairly good (although it might seem clumsy at first), the approximate \$5 additional cost of the T-45 over the K-22 seems worth it. True, the compass dial is calibrated only N-E-S-W-N, but the user can easily calibrate the dial himself in 10° increments using a method I'll describe later. A slot at the back of the attractively-styled case allows a screw-driver type adjustment for resynchronizing the control box, if needed. If this adjustment is made correctly and the dial recalibrated, the T-45 can be as accurate as the U-100 model, but it does take some "getting used to".

The T-45's motor circuit is identical to that of the K-22. However, the K-22's "end of travel switch" is replaced with a rheostat (variable resistor) in the T-45 motor housing. This rheostat, which consists of several fine copper wires on a "donut" form, is mechanically coupled to the motor shaft. As the motor rotates, the wiper (moveable part) of the rheostat also moves. Consequently, resistance between the wiper of the motor rheostat and an end of the rheostat constantly changes with rotation.

This rheostat is just a part of the "comparator circuit", the other components being located in the control box. The difference between motor rheostat resistance and a "fixed" control box resistance is constantly monitored by a meter. This meter drives the visible pointer on the control box face. Since (1) the motor rheostat remains in its position after the motor ceases rotation and (2) the control box circuit resistance cannot change, the meter pointer (and therefore antenna heading indication) remains in its position even if power is removed until the motor rotates again.

Some other brands of rotators use a similar "meter readout", but the needle goes to a neutral position when motor rotation ceases. With this type you don't know where the antenna is headed until you give a command. With the T-45, you can tell the antenna heading at all times.

The "fixed" resistance inside the control box includes fixed resistors and the slot-adjusted synchronizing potentiometer. Usually, this potentiometer is set once -- at start up from the back of the control box -- to compensate for component tolerances and make the pointer agree with actual north antenna heading.

How does the T-45 stack up for a DXer? Well, I know a lot of DXers who have used the T-45 for years of severe service with absolutely no trouble. For example, I use a T-45 to turn my 7 foot UHF Finco dish. Occasionally, another antenna has been mounted on the same mast, making a huge wind load, but the T-45 has never failed. Other DXers have turned 7 foot dishes with huge all-channel VHF arrays without difficulty (but I don't recommend it).

Thus, the T-45 can hack the wind load, but so can the two more expensive versions of Alliance. What I like about the T-45 is what you can't get with other Alliance types: 3° stopping increments and constant readout. With the 100° minimum increments of the U-100 and 60° increments of the C-225 (automatic types), you may have to "plug" (move rapidly from one direction to the other) to fish for a weak signal when a very directive antenna is used. For example, the beamwidths of the 7 foot dishes approach 8 to 10° at translator frequencies. In some cases, this means passing right through the peak signal direction. Where antennas with "normal", wide beamwidths are used, the convenience of the automatic Alliance U-100 at about \$4 more is money well spent.

The needle pointer on the T-45 is part of a rather delicate mechanism. Dropping the control box can cause damage or upset the pointer. Even tilting the control box (or laying it on its back) can upset readings as the needle may "wander" off of its natural position. That is, upright mounting is a must. At times, the needle may move in spurts, but this is usually due to an uneven mounting surface or compression of the transparent control box face causing pressure on the pointer. Sometimes a light tap on the control box releases a "sticky" pointer, making subsequent readings accurate.

The manual inconvenience of the T-45 control is easily overcome. For example, during hectic DX openings, I've operated the control bar with my feet when swinging the antenna over wide areas! Those with some basic knowledge of electronics can easily review the T-45 circuit and wire a remote spring-returned to OFF switch in parallel with the control bar so that the motor can be controlled from either source. This remote switch could be used as a foot control with center off position. Or, to avoid holding the bar or spring-returned to center remote switch in a given direction over a long time, a detent type of snap switch can be used.



Here, just select the direction desired once; your hands are then free. Of course, do remember to return the switch to center-off when the desired antenna heading is reached; otherwise, the motor will reach its north end of travel, keep running, and begin to overheat.

One added advantage of the T-45 is a feature not available on any other Alliance type. As shown in Figure 6, control boxes can be paralleled for control of a single motor from two or more sources. Control box pointers will always move together and give an accurate readout. For the DXer who TV DXers in one room and FM DXes in another, this is great. Another control box should cost about \$15 wholesale.



FIGURE 6. CONTROL OF ONE MOTOR  
FROM TWO T-45 CONTROL BOXES

#### U-100:

The Alliance U-100 automatic rotator is probably the most popular among TV/FM DXers. While not the most expensive (about \$30 wholesale) Alliance type, the U-100 is still the choice of many old-timers who feel the U-100 is the best buy on a dollar versus convenience/performance basis. Four-wire cable is required.

Figure 7 shows the Alliance control box, which (I believe) comes in a cream or wood grain color. Apparent on the front of the control box are (1) a stationary, round compass dial calibrated by 36 lines and eight directions, (2) a red pointer beneath the compass face that shows antenna direction, and (3) a round, manually operable, detent, direction selector knob with indicator pointer. The selector knob can be rotated from a full clockwise position (north) through 36 detents to a full counterclockwise position (north again) and vice-versa for 360° operation. The north (12 o'clock) position has an end stop so that only one 360° knob revolution is possible. On the underside of the control box are the resynchronizing lever and -- as with the other Alliance control boxes -- cable terminations for spade-lug or solder connections and a notch in the plastic housing for cable strain relief.

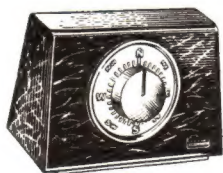


FIGURE 7. U-100 CONTROL BOX

Basically, the direction selector knob with pointer is aimed to the direction desired. Because this rotator is automatic, the knob can be released. The motor then moves in that direction, and the red internal pointer beneath the dial face follows motor movement, indicating where the antenna is actually aimed at any time. For each 10° motor movement (a minimum increment), a light in the control box lights and two rapid clicks are heard as the red pointer advances. When the direction selected is reached, the red pointer matches the pointer on the direction selector knob and the light is out.

Advantages of the U-100 over the Alliance T-45 include: (1) automatic (set it and forget it) operation, (2) lighted control box during motor operation, (3) light indication when control box and motor are out of synchronism, and (4) ability to easily resynchronize the control box and motor with a lever on the control box base. Disadvantages over the T-45 include (1) noisy operation and (2) wide  $10^\circ$  minimum increment as opposed to  $3^\circ$  movements.

The major difference in the U-100 circuitry is in the position indication mechanism. With the U-100, this mechanism is more mechanical than electromechanical. Position sensing devices in the U-100 motor housing include (1) a cam geared to the motor cylinder such that  $360^\circ$  cam motion occurs for a  $10^\circ$  motor movement and (2) a contact actuated by the cam that makes and breaks an electrical connection to ground once each  $10^\circ$  motor movement. Position indication in the control box is done by a ratchet wheel assembly (see Figure 8) consisting of a solenoid, spring-loaded pawl, and slotted gear wheel to which are connected a red pointer and several contacts. For one complete cycle of operation ( $10^\circ$  motor movement), the solenoid energizes and deenergizes, and the pawl moves back and forth once to allow a  $10^\circ$  movement of the gear wheel. This will be described in the next part.

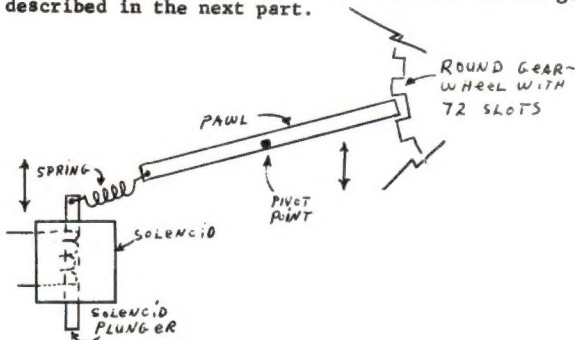


FIGURE 8. SIMPLIFIED VIEW OF U-100 POSITION INDICATING SYSTEM

The U-100 functions electrically and mechanically as follows: With the system at rest, the direction selector and red pointer are in agreement. This prevents application of ac power to the motor and control box. When the selector knob is moved one "click" ( $10^\circ$  movement) in either direction (always possible unless the knob is at its end of travel -- full north -- position), two closed circuits are made through contacts on the gear wheel, causing the following: (1) low voltage ac and the start capacitor are connected from the secondary of a step-down transformer to a motor winding; (2) the light and solenoid energize. Simultaneously, the motor begins to turn, the energized solenoid pulls down the plunger, and the pawl tilts just enough to allow the gear-wheel and red pointer to move one notch (about  $5^\circ$ ). When the motor shaft rotates about  $10^\circ$ , the cam in the motor housing interrupts the contact that held the solenoid energized. Since solenoid power ceases, the solenoid and the pawl return to their initial states, and the notched gear wheel and attached red pointer move through another  $5^\circ$  increment. With the direction selector knob and red pointer on the gear wheel in agreement, no circuit is made through contacts on the gear-wheel, and the system is at rest. This entire operation takes only about one second.

If the selector is rotated  $10^\circ$  in the opposite direction, operation is identical except that the other motor winding is energized and the gear-wheel and attached pointer with contacts moves in the opposite direction.



If the selector knob is rotated for more than  $10^{\circ}$  motor movement, operation is similar except that after one  $10^{\circ}$  movement, the light and solenoid deenergize only momentarily. Motor winding power is maintained through the closed gear-wheel contacts, allowing the motor to continue to turn in the direction selected. For each  $10^{\circ}$  motor movement, the light and solenoid energize and deenergize, producing the two  $5^{\circ}$  red pointer movements and the clicks. Only when the red pointer matches the selector pointer is motor power disconnected.

Occasionally, the control box and motor become unsynchronized. Evidence of this is the constantly lit light after the clicking stops. What has happened is that the motor can turn no more because it is at its true north heading (unless it is jammed), preventing operation of the cam operated switch. Thus, the solenoid and light remain energized. This usually occurs only with selector aimed near the due north direction (for cases of slight unsynchronism). If this unbalance gets worse, however, the red pointer may stop many clicks (degrees) from true north.

Resynchronizing the control box is simply a matter of depressing a shorting lever in the base of the control box. This action simulates closing of the cam-operated switch, and the result is rapid movement of the red pointer to a north direction. (The red pointer itself can be repositioned independent of the solenoid mechanism as shown in the U-100 instruction sheet. However, this will not deenergize the solenoid and light and is, apparently, intended for "manual" recalibration of the compass dial. However, this can get you more messed up than ever. Repositioning of the motor housing itself or the antenna is recommended if the north direction of the control box is not true north. If the red pointer is manually repositioned, it will not aim due north when the selector knob is at its north end of travel stop.)

If the unsynchronized control box remains energized, an excessive current (and heat) build up occurs, and an overcurrent device trips open to disconnect power. On the later U-100 rotators, a warning label is stuck on the control box stating that continuous use of the motor will trip the circuit protector. This overcurrent device does indeed trip with repeated, continued use of the rotator, and 30 minutes is needed before it resets itself. (It has tripped only once for me, and then only during a bang up tropo session.) This overcurrent device, of course, can be bypassed (jumped) so the control box is operable again, but the user then risks component failure.

The Cornell Dubilier equivalent of the U-100 is the AR-22R model (about \$36 wholesale). The AR-22R uses the bell-type of motor (which I like, especially for use with towers) and a compass dial not unlike the U-100 control box.

Although I haven't installed enough AR-22R's to give an honest evaluation, some comparison with the Alliance U-100 is noted. The bell-motors are more-rugged and have higher torque, but are more sluggish in cold weather. The real differences seem to be in the control boxes. The AR-22R is very noisy. It appears to go out of synchronism more often than the U-100, but resynchronization is easy. Some of the AR-22R noise (which seems to come from poor sound mounting and packaging) can be reduced by mounting on a rubber pad. However, the AR-22R control box compass dial is face-up, meaning that the user must look down at it, as opposed to the U-100's side dial. This makes it less convenient for a AR-22R user to leave the control box on top of his receiver. Of course, the AR-22R can be side-mounted, but that would make it even noisier. Last, the AR-22R compass dial and knob are slightly smaller, and it takes quite a lot more effort to turn the AR-22R knob. Otherwise, the two rotators are close in operation (the  $6^{\circ}$  AR-22R increments are, of course, nice for highly directional arrays). Either would be a good choice.

Next, we'll continue with the top-of-the-line C-225 model.

73. Dave

# TV MOVIE UNIDs

by Bill Thompson

If you like to do your own TV CCI investigation, or if you send your UNIDs to the VUD's TV CCI editor, your chances of solving any given UNID depend upon how much information you have about what you saw on the unknown station. Obviously, if you know the title of a program seen on an UNID, you're halfway there.

In the case of an UNID showing a local movie, a "late-late" flick, a midafternoon matinee, etc., you may see just a few minutes of a film, only to have it fade out just before ID time. This happens most frequently with Es openings; you just can't depend on the ionosphere to keep any station "in" long enough to get an ID on every station. Don't give up, though; if you recognize one or more of the actors in a movie, you may be able to learn the name of that movie through a little research.

Most public library systems (and many university libraries) have reference books which contain, in alphabetical order, the names of every major actor and actress, most of the minor ones, and some "bit players" too. Each listing has the titles of the films that each actor has appeared in, and gives the year of release.

For TV DXers, the following books would be most useful, and most widely distributed throughout the U.S. and Canada:

The American Movies Reference Book, Paul Michael, Editor-in-Chief, published 1969 by Prentice-Hall Inc. Dewey call #791.43 M 621

The International Encyclopedia of Film, Dr. Roger Manvell, General Editor, published 1972 by Crown Publishers Inc. Dewey call #791.43 I 61

International Motion Picture Almanac, Richard Gertner, Editor, published yearly by Quigley Publishing Co.

Personally, I've found the International Motion Picture Almanac to be the most complete listing of this type; however, since it is primarily printed for use by film distributors and TV stations, it may not be in every library system (but it should be in most of the large cities).

These references are very useful. It's one thing to have a bit of data next to an UNID logging such as "...late movie w/Gary Cooper and Barbara Stanwyck", but it's quite another to actually know the title of the movie. Checking one of the movie encyclopedias, one would find the 1947 film "Meet John Doe" listed after Cooper's and Stanwyck's credits.

It is also helpful to have a copy of paperbacks such as Movies on TV (\$1.25, Bantam Books, Inc., 666 Fifth Ave., New York, NY 10019) or TV Movies (\$1.25, Signet Books, The New American Library, Inc, Box 2310 Grand Central Station, New York, NY 10017). These books list films that have been released for TV, as well as the "made-for-TV" movies. In addition to the stars of each film, a brief plot rundown is included, and TV Movies indicates whether or not each film is in color.

*Bill Thompson*



# Bob's Tek-Notes

by Robert B. Cooper, Jr.

## APPLICATION NOTES REGARDING METEOR DXING

DXing via meteor trail reflections, as noted last month and previously(1,2) is hardly new. The first VHF "skip" via meteors was reported during the second world war and is aptly reported in the proceedings of the IRE of that era.

MS DXing is a regular thing. There is some variation in signal levels and burst quality from day to day; but overall the differences between days is minor.

Because MS DXing is so regular, it is the best method of filling in holes in one's log; holes created by local stations as a rule.

If you DX from the eastern time zone, you can best utilize the hours between 0500 and local station sign on time to MS DX to the north and south of you (within the same time zone). And you can best use the hours immediately after local station sign off to MS DX the central and mountain time zone stations.

If you DX in the central time zone, you can best use the 0500-local sign on period to DX the eastern time zone, stations north and south of you with earlier sign ons than your locals, and the time immediately after local station sign off for mountain and Pacific time zone stations.

If you DX from the mountain or Pacific zones, you can use the time between 0500 and local station sign on to DX east of you, as well as north and south of you.

In short, everyone should have some shots at meteor scatter reception.

Last month we dealt with the expanded world of high band meteor scatter. If you got the impression that it takes big antennas and lots of fancy amplifier equipment; you probably see the problem correctly.

This month we will deal with some generalities about MS DXing; some points of which may help you analyze your own DXing abilities in this area.

### PRIOR TO SET UP -

Meteor scatter signal level returns are generally quite weak. And while MS levels vary from burst to burst and even day to day, the "typical" burst averages around -30 dbmV (30

microvolts) on a 10 db gain antenna. This is roughly the same signal you would expect to receive from a 150 mile distant low band station on an average day with a typical deep fringe receiving antenna.

Antenna size (and gain) is therefore a very important consideration for MS DXing. You can use a small one ... but you won't see very much. Or to put it another way ... you will see a great deal more with a decent sized antenna array.

Pre-amplifier gain is important ... provided the pre-amplifier has a lower noise figure than your receiver, and it has at least twice as much voltage (rf) gain as the noise figure on your tuner; as measured at the tuner itself. Typically, home pre-amps are not worth much. Gains of 20 db and up are almost mandatory with noise figures on low band of at least 3.0 db (and that is not very low!).

### TIMING ...

Most bursts last from a fraction of a second up to 3-5 seconds. Not very long, decidedly.

However, if the station doing the transmitting is running a test pattern, call slide or other easily identifiable video signal, even a fraction of a second is adequate; provided:

- (1) provided your vertical and horizontal controls have been pre-set,
- (2) provided your vertical and horizontal sync locks quickly,
- (3) provided you are alert, know where to look on the screen for the identification, and have a moderately retentive mind,
- (4) and provided there is not heavy co-channel on the same burst.

Some stations run clearly identifiable test patterns for moderately long periods of time (ie. WCIV-4) day in and day out. Others run test patterns with calls or call slides but for only short periods of time (ie. WJXT-4). Still others run color bars or other not easily iden-

tied patterns (ie. many stations use the same pattern, often on the same channel at the same time, and there is no way to be sure which station you are logging).

I have found that knowing what a station runs and when it runs "it" is the single most important thing you can do .... after getting set up with reasonably good equipment.

In my case, I use our WATS line to telephone all of the stations I desire information from and I build up a "looking schedule" in advance. Then I follow that schedule religiously until I have either logged the station in question or have some reason to drop the station for the time being.

If you have been DXing for some time, the "stations" you will probably need the most are those operating on your "local" station channels. With full network service in most areas from 0700 to after midnight, most stations begin programming just prior to the commencement of network service and sign off promptly just after network service ceases for the day. There are exceptions to this, of course, and these exceptions make good to excellent MS targets.

Some of the more obvious pre-regular-broadcast day exceptions are CBS Semester Series, the University of Michigan Series, and the many southeastern stations that run locally produced country and western music shows in the 0600/0700 time slot. There are a few stations also running off-network Kaptain Kangaroo programs in the 0600-0700 time slot now.

All of these have to be carefully judged by what other stations are running in the same time segment, however, since more than one station may be carrying the same program (if not the same edition) at the same time.

Saturday and Sunday are good days because they present new network schedules. On Saturday, even ABC begins network service at 0800 ED(S)T / 0700 CD(S)T and this gives you an earlier shot at ABC stations than during weekdays. Sundays is particularly interesting for some because network service begins very late and stations are left on their own to devise what to run early in the broadcast day.

On the opposite end of the broadcast day many stations program late movies either across the board or a few nights per week. Some (WCVB-5) are on all night one or more nights per week while others (ie. WCCO-4) run late during the week with movies. Many stations run a "Sign/Off" news at the end of the

broadcast day and this "newscast" is often merely a video slide that reads "SIGN OFF NEWS" or something equally identifiable. Such a slide, up for 5 minutes or so while an off camera announcer reads (or stumbles) thru the morning headlines is a good shot for MS.

Most stations also have a day or so each month (weekly in some cases) when the transmitter engineers keep the rig on the air well past normal sign off time to run multi burst, stair step and other checks. These often are not with a test pattern, since a pattern is all but useless for most internal video sweep tests; so you have to pin down the type of pattern either used or to be used if these tests are to be identified from a distant station. Such testing is usually programmed and scheduled weeks or months in advance; a quiet chat with the stations CE will usually reveal when you can look for them.

As noted, timing is everything with meteors. Knowing when to look, and roughly what to look for, is the key to identifying what you see.

MS bursts fall into three easy to handle descriptive categories:

(1) Ping - a very short burst that lasts just long enough for you to know that something was there. This seldom if ever produces anything you can identify.

(2) Burst - a burst lasting long enough for you to recognize what the program (or video) material was. This can be a second or two.

(3) Super Burst - A burst lasting long enough to produce almost comfortable (if short lived) viewing. If you have time to snap a picture of it, it was a super burst!

On different mornings, pings, bursts or super bursts will dominate. Pings and bursts can dominate on mornings when no meteor showers are present; super bursts usually dominate only during meteor showers.

The bigger your antenna system (ie. the higher the gain), and the greater your system sensitivity, the higher your burst and super burst count.



On a typical morning, that is a morning with no particular meteor shower activity (\*), you should be able to dial-up in any low band channel (the lower the channel number the better your burst count) and having selected your time (ie. early) and direction (ie. point towards area where stations are on the air); observe meteor bursts in action.

What can you expect? If the channel you have chosen is 2,3 or 4, and if you have a five element yagi (cut to channel) up 30 feet or more ... the burst count should average two bursts per minute for every station on the air within 700 and 1,200 miles within your 3 db beam widths.

That may be a little involved for you; so let's take it apart piece by piece.

A five element yagi is of course an antenna; 30 feet means above ground.

The burst count ... the number of bursts you can count in a 60 second period.

Average ... take any 30 minute segment between 0500 and 0700 and count the total bursts. Now divide by 30 (number of minutes in a half hour segment) and that is your average.

Every station within your 3 db beam width; every antenna has a pattern (ie. sharpness). If the gain of a five element yagi is 9.0 db (reasonable assumption), then at some point either side of the peak gain (dead-on forward direction) the gain drops off 3 db. This is also known as the half power point. So with a typical five element yagi, this 3 db beam-width is on the order of +/- 25 degrees either side of dead-on center (heading).

700 to 1,200 miles is the normal day optimum meteor "skip range". Stations closer than 700 miles are seen, but not very often (reference those 700-1,200 miles). Stations beyond 1,200 miles are equally rare; perhaps even more so.

So layout your own situation. Draw a line on a map that represents the antenna dead-on beam heading. Now use a dime store compass and lay out + and - 25 degree arcs either side of the beam heading. Then draw in arcs across the arcs. All of the stations that fall within this marshalled-off region are fair game for an average of two bursts each per minute.

Is that all there is to it?

Not quite. It is assumed you have a pretty decent receiver; perhaps even a good gain (20

db or better) low noise pre-amplifier.

This kind of set up will get your feet wet on MS; if you stick to low band and don't expect to set the world on fire. As noted previously, if high band is your game, only big antennas and lots of low noise pre-amplification can play. And if really worthwhile results are important at low band, some low cost five element yagis for single channel operation are several times as effective as "all channel" types several times their size.

Optimum results for a low band channel are easily obtained. Simply plan an array with lots of gain and directivity. A two stack array (vertically stacked) with 1 wavelength between bays is a good choice. A better ... perhaps optimum ... array is a four stack system with two by two stacking (two wide by two high); about all that most can erect in their backyards.

The burst count falls off quickly as we increase frequency. Tens-of-hours of tests indicate that for every burst at channel 6 you can expect 5-8 at channel 2; when both receiving systems are identical. By the same token, for every burst at channel 7 (or any high band channel), you can expect 20-25 at channel 6. The mechanics of meteor bursts is beyond this discussion and probably not relevant for the casual MS DX'er. A good working knowledge of what to expect, however, is important.

In summary, meteor DXing is for anybody that wants to log new stations, and for the guy that doesn't want to wait around for the band to open on Es or long haul tropo. With top notch equipment and techniques, you can and will log 5 to 10 E's distance stations each and every morning of the year; if you will apply yourself.

(1) September, October 1969 VUD

(2) January 1970 VUD

(\*) For a complete table of the major Meteor Showers each year, with dates and times, see VHF MANUAL by the American Radio Relay League, Newington, Ct. 06111 (\$2.50 per copy); page 23.

NOTE: I regret that time does not allow exchanging correspondence with other enthusiasts on this subject. Letters received with questions will however be taken into consideration when future columns are prepared.

-30-



OCTOBER 1973

Glenn Hauser  
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THE UNITED STATES OF MEXICO and the USA have finally ratified an "Agreement Concerning FM Broadcasting in the 88 to 108 MHz Band" which had been signed 9 November 1972. The document sets forth a number of technical parameters and, for the first time, establishes an allocation table for Mexican cities within 199 miles of the border (such a table for TV has existed for many years). Of greatest interest to DXers is the large-scale reshuffling of frequencies and stations on the Mexican side--while only one US station is being made to move (KTAI, Kingville TX, from 91.9 to 91.1, and from class D to class A). For your future reference we present a list of all the Mexican stations listed in an annex to the agreement--in order by new frequencies "initially assigned". It remains to be seen how quickly--if ever--all these changes really take place. FM DXers are urged to monitor the Mexican border area carefully in the months to come, and to advise this editor of any frequency changes they can confirm. \* = station not known to be on the air

New MHz	Old MHz	Call	Location	New MHz	Old MHz	Call	Location
89.9	---	*XHFE-	Mexicali BC	99.5	99.3	XHMS-	Monclova Coah
90.1	90.0	XHNV-	Monterrey NL	99.7	98.5	XHPL-	Cd Acuña Coah
90.3	90.3	XHIS-	Tijuana BC	99.7	99.7	XHSP-	Monterrey NL
90.9	90.1	*XHXL-	Monterrey NL	99.9	---	*XHSG-	Piedras Negras Coah
91.1	91.3	XETRA-	Tijuana BC	100.3	---	*XHTF-	Monclova Coah
91.5	91.5	*XHJC-	Mexicali BC	100.5	100.5	XHMG-	Monterrey NL
91.9	102.5	XHEC-	Sabinas Coah	100.7	93.3	XHH-	Cd Juárez Chih
92.3	---	*XHMP-	Mexicali BC	101.3	---	*XHIL-	Monterrey NL
92.5	99.3	XHRM-	Tijuana BC	101.5	98.1	XHMLS-	Matamoros Tams
92.5	92.5	XHSRO-	Monterrey NL	101.9	---	*XHFF-	Mexicali BC
93.3	93.2	XHQQ-	Monterrey NL	102.7	93.9	*XHQT-	Nogales Son
94.1	94.1	XET-	Monterrey NL	103.3	99.5	XHVG-	Mexicali BC
94.1	93.7	XHNOE-	Nuevo Laredo Tams	103.5	99.3	XHEM-	Cd Juárez Chih
94.5	96.5	XHTA-	Piedras Negras Coah	103.5	89.1	*XHRZ-	Nogales Son
94.7	94.3	XHRP-	Saltillo Coah	104.3	100.9	XHTO-	Cd Juárez Chih
94.9	---	*XHNL-	Monterrey NL	104.5	100.1	XHERS-	Tijuana BC
95.7	96.1	*XHQS-	Tijuana BC	104.9	---	*XHAP-	Mexicali BC
95.7	96.5	XHRK-	Monterrey NL	105.1	---	*XHIM-	Cd Juárez Chih
97.1	99.3	*XHNK-	Nuevo Laredo Tams	105.1	---	*XHNI-	Nogales Son
97.3	---	*XHSR-	Monterrey NL	105.5	97.3	XHRE-	Piedras Negras Coah
98.1	98.1	XHRL-	Monterrey NL	105.9	---	*XHGH-	Cd Juárez Chih
98.3	93.7	XHPX-	Cd Juárez Chih	106.1	95.3	XHSU-	Chihuahua Chih
98.9	97.7	*XHQF-	Tijuana BC	106.9	95.7	*XHPJ-	Monterrey NL
98.9	98.9	*XHJD-	Monterrey NL	107.3	---	*XHFG-	Tijuana BC
99.1	---	*XHSL-	Piedras Negras Coah				

This list also reveals a number of new CPs, for which no "old MHz" is known. Note that the Tijuana/San Diego and Juárez/El Paso conflicts are alleviated by this arrangement; and that the top half of the FM band may yet come into general use. You can get the full document free on request from the FCC. Also shown are class of station (a class A license doesn't have to be on a (US) class A channel), power, and for the first time, antenna height above average terrain. However these last two (and possibly some of the frequencies) appear subject to the usual variety of errors in data supplied by the Mexican government.

Some other Mexican news from other sources: XHDF-13, the government channel, will "very soon" have seven repeaters "en provincia", one of which will be in Yucatán. Now appearing in Tele-Guía network lists are a ch 5 net-2 in Cd. Cuauhtémoc; ch 4 net-2 in Zamora; and a ch 12 net-4 in Huasteco; these may be translators! XHZM-92.5 has the slogan "Radio Primavera"; XHPT-91.3 is reported to have begun operation in January 1973. See also my recent FM DX reports for information on frequency variation and programming. Tele-Guía is still available as detailed in the June VUD; but the price has risen to 3% (US) a copy now that the magazine costs \$3 (M.N.-Mexico) on the stands.



# FCC FM NEWS

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Keeping track of all the new FM stations and station changes is a major job. FM is by far the medium accounting for the greatest amount of broadcast activity at the Federal Communications Commission. In an interview with Martin I. Levy, chief, FCC Broadcast Bureau Broadcast Facilities Division in the Oct. 1, 1973, Television/Radio Age (p. 146), comparative data were given. New station applications [filed in the fiscal year ending June 30, 1973]: TV (vhf) 7, TV (uhf) 14; **FM 381** (46 comparative hearings designated); **AM 38**. Applications for major changes in existing stations for the same 12-month period: TV (vhf) 5, TV (uhf) 10; **FM over 1,000** (!); **AM 245**. So you can see that Roger Brown, my TV counterpart in the **WTFDA**, has a comparatively easy job noting only a score or so annual changes, while in **FM** the comparable figure is many times larger. And there's no indication of a let-up in **FCC-FM** activity as **FM** continues its inexorable march to supplant completely the older **AM** system of broadcasting in this country, and worldwide. TV activity is comparatively slow because of saturation of the table of allocations, particularly in vhf.

Here are a few mysteries, taken from an ad for Drake-Chenault, Inc., in the Sept. 24, 1973 Broadcasting. The following stations are alleged to have recently changed programming format (and perhaps added stereo). If you note new programming on any of the following or stereo please write, and I'll pass on the word. **WOKU 107.1 Greensboro PA, KHAY 100.7 Ventura CA, WTXW 95.9 Guntersville AL, WFRI 97.7 Auburn AL, KMIO 101.3 Sinton TX, KQIX 93.1 Grand Junction CO, WHNE 94.7 Birmingham MI, KJOK 93.1 Yuma AZ, WULC 97.5 South Boston VA, WUOA 95.7 Tuscaloosa AL, WVVV 104.9 Blacksburg VA, WEST-FM 96.1 Easton PA, WBTR 92.1 Carrollton GA, and KHOO 99.9 Waco TX.**

## New Construction Permits

AL Brewton	100.3	3000 h.v.; 300'
AR Jonesboro	107.9	98000 h.v.; 600'
CA Manteca	*90.3	10
CO Pueblo	97.9	100000 h.v.; 1130'
CT New London	*91.5	10
FL Crystal River	98.5	100000 h.v.; 430'
FL Winter Park	*88.9	10
IL Beardstown	94.3	3000 150'
IA Iowa City	93.5	3000 h.v.; 300'
IA Oskaaloosa	*88.7	10 Minn. Penn. Co.
ME Bangor	*69.9	10
ME Bangor	92.9	15280 h.v.; 741'

[Initial decision - subject to reversal]

MA Easton	*91.3	10
MA Franklin	*91.3	10
MA Milton	*91.5	10
MA North Dartmouth	*90.5	10
MA Rockland	*91.5	10
MA Walpole	*91.5	10
MO Jefferson City	100.1	3000 h.v.; 300'
MN Grand Rapids	K269AB	*WOR 10 [KEZZ 94.4 Aitkin MN translator]
MN Princeton	106.3	3000 h.v.; 300'
MO Harrisonville	100.7	26000; 255'
MT Kalispell	97.1	96000; -195'
NV Las Vegas	*88.1	10
NH Hanover	99.3	3000 h.v.; 285'
MN La Cresent-La Crosse	WI K292AG	*g 10 [WNUC-102.5 Madison WI translator]
NY Waverly	102.3	1500 h.v.; 400'
NC Farmville	94.3	3000 h.v.; 300'
OH Miamiburg	*89.7	10
OH Paris	*90.1	10
OH Upper Sandusky	95.9	3000 h.v.; 250'
OH Wilmington	102.3	3000 h.v.; 300'

[Final decision] [93.7 Medford OR] [93.7 Medford OR]

OR Klamath Falls K205AC \*WOR 10 [KTMT/

PA Mercersburg 92.1 3000 h.v.; 295'

PA Pittsburgh \*88.3 10

RI Smithfield \*91.5 10 [Decision]

SC W. Columbia 100.1 3000 h.v.; 300'

TX Alice 102.3 3000 h.v.; 300'

TX El Paso 98.3 99000 180'

UT Danti \*95.5 10 [KSL-FM 102.3]

UT Billford K232AL 105.5 10

VA Front Royal 95.1 3000 h.v.; 100'

V. Shenandoah \*88.7 10

## Deletions

FL Key West WLAB 95.5 [Construction permit  
\*set aside; returns to pending status]  
KY Georgetown WRVG \*90.1

## On the Air and OX Ready!

CT Hamden WQAO \*88.3 10  
GA Americus WPIR 97.7 3000 h.v.; 300'  
IL Benton WQRX 106.3 3000 h.v.; 300'  
IN Anderson WLNH 97.9 30000 h.v.; 490'  
IA Sioux Center KVDB-FM 94.3 3000; 226'  
KY Bourbonville WYNY-FM 92.5 3000; 300'  
ME Presque Isle-Caribou WDBP 96.9 100000  
MA North Adams WJUN \*89.5 10 [h.v.; 440']  
MA Sheffield WBSL \*91.7 10  
MI Bay City WCHM-FM \*91.3 10  
MO Lebanon KJEL-FM 103.7 30000 h.v.; 25300v;  
255' [Calls changed from KJEL]  
MT Butte KMSM-FM 10 10  
SC Orangeburg WHCE-FM \*103.9 3000 h.v.; 300'  
SD Mobridge KOLY-FM 99.5 56000 h.v.; 560'  
TX Huntsville KSHU \*89.3 10  
VA Portsmouth WHNS \*88.7 300 115'  
WI Kewaunee WAUN 92.7 3000 h.v.; 300'

## Changes in Facilities

AL Mobile WKSJ-FM 94.9 100000 h.v.; 410'  
AR Little Rock KEZQ 94.1 60000 (275')  
AR Osceola "poor little" KOSE-FM 98.1  
11000 (265') [See Brown, p.14, Oct. VUD]  
CA San Clemente KAPX 107.9 50000 h.v.; 465'  
CA San Francisco KALM \*91.7 1800 h.v.; 940'  
KFOG 104.5 7900 h.v.; 1450'  
CA Ukiah KLIL 94.5 6700 h.v.; 1120'  
CO Denver KCFR \*90.1 26500 h.v.; 910'  
KLZ-FM 106.7 94000 h.v.; 9600'  
CO Grand Junction KQIX 93.1 170' (250000v)  
CT Hartford WCHN 105.9 190000; 17500v; 740'  
[Directional to protect WHB Newark NJ]  
DC Washington WDDC-FM 101.1 50000h.v.; 400'  
FL Miami WMTI 93.1 1000000h, 93000v; 390'  
FL Orlando WBUN-FM 105.1 50000 h.v.; 350'  
FL West Palm Beach WIRK-FM 107.9 1000000h.v.  
LA New Orleans WEZB 97.1 100000h.v.; 450' [240]  
ID Boise KBKX-FM \*92.3 44000 h.v.; 2500'  
IL Peoria WCBU from \*88.3 to \*88.9 11000/  
Front Wayne WPTH 95.1 adds v [260']  
IN Jasper WITZ-FM 104.7 50000 h.v.; 390'  
IN Terre Haute WFER 102.7 14000 h.v.; 500'  
IA Davenport KLIK 103.7 63000 (860')

ME Gardiner WABK-FM 104.3 14000h.v.; 340'  
MI Bay City WGER-FM \*102.5 95000h.v.; 730'  
MI Midland WSCV 99.7 100000 h.v.; 690';  
from University Center (Auburn) MI  
MI Muskegon Heights WKJR-FM 101.7 300'  
MN Minneapolis KTIS-FM 98.5 74000; 270'  
MO Kennett KIMO 98.9 13000 h.v.; 370'  
NY Binghamton WAAL 99.1 7100 h.v.; 1090'  
OH Akron WAUP \*88.1 3000; 115'  
OK Oklahoma City KFJL 98.9 1000000h.v.; 420'  
PA Harrisburg WNSP \*94.9 50000h.v.; 204'  
PA Wellsville WGR-FM from 97.7 to 104.5  
50000; 300'  
SC Dillon WDCS-FM 92.9 10500 h.v.; 270'  
TN Memphis WQXX \*88.5 2150 h.v.; 507'  
TX El Paso KTEP \*88.5 100000h, 32000v; 1910'  
UT Salt Lake City KUER \*90.1 22500 (4400')  
" " KSOP-FM 104.3 3630' (13000hvh)  
VA Roanoke WLRG 92.3 20000h.v.; (57') Callis,  
WA Seattle KXHC \*89.5 1000 (320') [too,  
[from WLRJ]

## Call Letters Assigned

AZ Yuma 93.1 KJOK (was KVOY-FM)  
AR Blytheville 96.1 KHLH (KLCH-FM)  
FL Ft. Lauderdale 100.7 WHYI (WLOY)  
FL St. Petersburg \*101.5 WKES (WGBD)  
FL Venice 92.1 WAMR-FM (WQWH)  
GA Forsyth 100.1 WFMF; IL Rockford 100.9  
WQFL (WJQJ); IA Cedar Falls 95.9 KUNI  
[KHKE]; IA Davenport 106.5 KRRV (KXNT-FM)  
KY Henderson 103.1 WBIIC (WUAZ)  
ME Waterville \*91.5 WMBH  
MA Boston \*89.7 WGBH (WGBH-FM)  
MA New Bedford WWSY 98.1 (WNBH-FM)  
MA Pittsfield 95.9 WGRG-FM  
MI Birmingham 94.7 WHNE (WHFI); MI Orchard  
Lake \*89.3 WBLD; MI Three Rivers 95.9  
WXYJ; MN Albert Lea 95.3 KCP1-FM  
MS Clarksdale 101.7 WJBI; NE Columbus  
\*91.9 KTLX; NE Lincoln 102.7 KHKS (KNHG)  
NE Omaha 92.3 KEZO (KFMY); NY Fulton  
104.7 WKFM (WOSC-FM); NY Rochester 103.9  
WFGF; OH Dayton \*88.1 WGBM; OR Salem  
105.1 KORI (KSUM-FM); PA Pittsburgh  
93.7 WNO1 (WKJF); PA Scranton \*91.5  
WVNM-FM; PA York 105.7 WQXA (WYOM-FM)  
TX Dallas-Ft. Worth 99.9 KZEM (WFAA-FM)  
TX Fort Worth 99.5 KPLX (KKOL-FM)  
TX Keene \*88.3 KSUC (WA Auburn \*88.9/  
TX Midland 93.3 KBAT [KGRG]

Bill Dickerman, Williamsport PA, has a friend living in Johnstown, home of the new WJNL-FM 96.5. Said friend wondered why the FCC placed WJNL-FM so close on the dial to WJAC-FM 95.5: "They are only  $\frac{1}{2}$  inch apart on the dial!" This spacing is perfectly legal, as stations need only be 800 kHz apart from each other in the same town. Thus WJNL-FM could have been on 96.3.

Also from PA, Bruce Rummel, Wertzburg, sends a copy of an FCC news release detailing the eight MA, CT, RI 10-watt educational FM grants, which were all granted over the objections of WTEV, channel 6 [TV], New Bedford MA. These grants are listed elsewhere in FCC actions, "New Construction Permits." Also, WERS "88.9 Boston decreases power from 17000 to 895 watts, but increases its height from 55 to 740 feet, slightly increasing coverage for the Emerson College FM station. From MA, Bill Grant, Worcester, reports WCOF-FM 100.7 has changed from MOR to "total gold" (mostly rock, presumably), and with his new, improved FM antenna system, Bill notes WCCM-FM 93.7 Lawrence MA is "still mono local variety. The Gloucester station [WVCA 104.9] is still mono classical."

In eastern Iowa news, Robert H. Baker, Humboldt, sends news concerning the recent tower collapse of the KCRG-TV tower. The Cedar Rapids station was just making room for the installation of the KRIN-TV [ch. 32 Waterloo] and KHKE (FM; soon to be KUMI) antennas when the crash happened, 13-3-73, killing 5. Bob says: "This disaster will no doubt delay both stations a year or more. KHKE will continue to operate at 88.1 [instead of 90.9] from Cedar Falls with low power and a short tower."

Word of two previously unlisted Acapulco, Gro., Mexico FM stations comes from Kenneth R. Simon, West Palm Beach FL, who relied on a portable with "lousy" calibration. They are XECI-FM, about 96 mhz, identifies X-E-C-I, es stereoisno. Tonal quality was poor. The other station: XHNU-FM 96.5, "Radio Mundo, A-C-D 73, parallel with XEACD (AM, 550 kHz). XECI-FM's address: Padre Andres de Urdaneta No. 13; XHNU's address: Corp. Mexicana de Radiodif. SA, Reforma 403 2o Piso Mexico DF 5. Ker found Mexico City "way too cluttered to even measure stations" on the portable, and it was "hot as hell there."

Fred McCormack, Bismarck ND, notes reception of the new KOLY-FM 99.5 Mordridge SD. This new mono station also picked up in Duluth recently. Ohio's Carlson Howington tells me he is near the 950 mark in stations heard.

From Minnesota, John Ebeling, Bloomington, notes with dismay the recent granting of Princeton NJ 105.3: "Another station in the area to clutter up the band." WCCO-FM 102.9 Minneapolis, now 100 kw (and presumably operating fulltime now, 7 days/week). "They must take the record for having a CP way back in 1962 and just now getting up to authorized power. Took about 8 years to just get on the air -- talk about dragging their feet!" John sends an item from the Oct. 1973 program guide of the Wisconsin educational network, in which FM DX reports to some of their stations are noted. "Here is a partial list of recent evidence of the 'reach' of some of our FM stations: Baton Rouge LA WHAD; West Palm Beach FL WHAD; Clearwater FL WHA-FM; West Palm Beach FL WPNE-FM; Oak Lawn IL WHHI; Elmhurst IL WHAD; Munising MI WPNE-FM; Newport OH WHA-FM; Elmhurst IL WHRM. Radio Program Director Norman Michie explains that the practice of logging distant reception, known as 'FM DXing' is on the upswing. Distant listeners who can correctly report station call-letters, frequency, and program service during the time of reception are sent a letter of confirmation for their files." [Through the work of the WITFCA the stations are becoming increasingly educated about FM DXing; notable among the towns listed above are the "QTHs" of several active WITFCA FM DX listeners.]

Reporting from Oregon is Dennis Park Smith, now at Box 63, Carson Hall, U. of Oregon, Eugene 97403, who traveled from N. CA by car with a portable FM, and noted the best signal on the trip to be that of KMTT -3.7 Medford. The KMTT translator on 100.9 K265AA was easily heard 5 miles south of Cheult and 5

miles north of Crescent-Gilchrist OR, or about a 20 mile diameter. The strongest signals on the band north of Gilchrist were K265AA 100.9 and KICE 100.7 Bend. "Program-wise, I guess, it doesn't matter, since they are both easy-listening formats. But, what a way to allocate." In Portland, KPFM 97.1 now seems to be calling itself "KPAM stereo 97, Portland (yes, this station has applied for permission to change from KPFM to KPAM [the am station wants KLSC]). Dennis heard KZIN 107.9 Bakersfield CA sign off giving their power as 4300 watts and location on Mt. Adelaide rather than their former 350 watts on Mt. Breckenridge." (I am not sure that they have moved, for I still list them as 350 h.v.; 3650', with 4300 watts as their former power. You cannot always go by sign-on or off announcements, since stations are often notoriously slow in changing the continuity books from which announcers read such announcements.) In recent OR developments, Dennis notes local KZEL-FM 96.1 Eugene is soul (not rock), while KICE 100.7 in Bend is stereo, MOR. KHPE, "K-Happy," 107.9 Albany is \$ MOR.

Adela Ossowski, Erie PA, says that local WQLN-FM 91.3 has started the Talking Book service for the blind on their sideband with volunteer readers; also they close their stereo light when broadcasting mono. Adela points out my error in the Sept. VUD in listing WQQQ in Erie PA on 14 instead of where it should be: Easton PA. "Also you mentioned WCMU-FM" [p. 15] as being on 90.1 mc., but it is at 89.5 mc. from Mt. Pleasant MI."

W. Bruce Dean, Seekonk MA: "Relative to request of Richard Wood on directional FM operations: WBRU (FM) Providence is such, limiting ERP to 20 kw to northeast (towards first adjacent WHRB Cambridge MA). WTFM Late Success NY is directional to protect Princeton's FM station. I believe, but am not certain, that WGR-FM Manchester NH is directional, possibly to reduce overlap with commonly owned and nearby WHEB-FM Portsmouth NH. I believe WHYN-FM Springfield MA used to be directional to save WPAI-FM Paterson NJ, but am not certain WHYN-FM is still so limited." Those with access to Broadcasting would do well to read Bruce's letter published in "Open Mike," p. 16, Oct. 8, 1973 issue, in which Cecil Heftel and RKD General are both rapped for auroting the sale of WROR 96.5 Boston to Heftel and knuckling under to so-called public interest pressure groups, including "Nicholas Johnson, Ralph Nader and their ilk who presume to speak for 'the public'." . . . Those who . . . work for educational FM stations just cannot grasp the idea that ratings should be the criterion upon which a format is based—that by seeking to please listeners, a radio station is best serving the 'public interest'."

Paul E. Petosky, Munising MI, claims WSDO (AM) Sault Ste. Marie MI has applied for a Class C frequency with 50 kw, but is being opposed by WSMN there (92.7). Equipment for WQAO 98.3 where Paul works will soon be on order, with a 190' Rohm tower just ordered. Richard Milborn, Newark DE, reports WROR 104.9 Egg Harbor (City) NJ is monaural; previous reports said \$.

New FL programming developments are given by Dick Clark, Lighthouse Point. WQSR 122.5 Sarasota went on the air Sept. 17 with rock in \$ (quad, too), 24 hours a day. WQLY 100.7 Fort Lauderdale, now a Heftel station, is changing calls to WHYI. WIRK-FM 107.9 West Palm Beach went country and western 24 hrs. a day, "Stereo K Country." WPEZ 94.5 Pittsburgh PA is now rock in \$ 24 hours a day, as is WBW-FM 105.1 Orlando FL. WSKP 105.5 Sebring is now all religious, monaural.

Albert H. Ellis, Brantford, Ontario, sent information from WWBI-FM "90.1 Chicago, noting that beginning Jan. 1, 1974, WWBI-FM will be 24 hours, off only until 5:30 Monday mornings.



NOVEMBER 1973

Deadlines:

12 November (8T TVSB)

10 December (9T 90FM)

11 January (10T FMSB)



# FM SCOREBOARD

Editor:

Glenn Hauser

K O S U - F M

Okl. State Univ.

Stillwater OK 74074

Dxer, Location	Stns	88-92	Es	MS	USA	Can	Mex	For	Sat	YB	As of
Andy Bolin, Charleston IL	1240	164	323		44+	5	3	2	55	70	24 Sep
Bruce Elving, Duluth & Adolph MN	1204	92	521	5	42+	3	1	0	47	48	3 Sep
Glenn Hauser, Von Ormy area TX	903	153	665	43	39+	2	9	5	56	71	15 Oct
*John Ebeling, Bloomington MN	756	92	344	11	40+	4	2	0	47	48	1 Jul
Robert Seybold, Dunkirk NY	740	72	272		41	4	4	0	49	60	4 Oct
*Richard E Wood, Baton Rouge LA	722	87	285	15	38+	3	7	2	51	71	4 Jul
Fred Nordquist, North Syracuse NY	556	71	176	7	38+	2	0	2	43	69	5 Sep
Glenn Hauser, Enid OK	519	29	275	41	39	4	5	1	49	65	15 Oct
Ron LeBlanc, Marrero LA	496	66	188	2	34+	2	3	4	44	71	16 Sep
Frank Merrill, Toledo OH	496				28	0	0	0			16 Jul
Mr. Pat Dyer, San Antonio TX	495	64	366	5	38	2	6	2	48	70	8 Oct
Peter Sawatzky, Waterloo Ont	349	35	112	7	32	2	0	0	34	71	6 Sep
Richard J Steinberger, Hudson MA	256	46	36	1	23	2	0	0	25	58	9 Jul
David Walcutt, Carbondale IL	242	24	0	1	15	0	0	0	15	73	7 Oct
Dennis Smith, Wasco CA	201	24	41	1	8	0	1	0	9	52	2 Oct
*Wayne Ebeling, Bloomington MN	180	29	19	1	13	0	0	0	13	72	30 May
*Joseph Smith Jr, Johnson City NY	155	14			10+	1	0	0	12		9 Jun
*Richard N Allen, nr Billings OK	146	18	32		14	1	2	0	17	73	9 Jul
Glenn Hauser, Stillwater OK	128	22	13	12	19	1	2	0	22	73	15 Oct
Adela Ossowski, Erie PA	110	32	5		13+	1	0	0	15	59	2 Oct
Frank Wheeler, Erie PA	101	5	0	0	4	1	0	0	5	64	18 Sep
*Anthony Markewicz, Winnipeg Man	88	6	75	0	8	3	0	0	11	72	31 Dec
Dennis Smith, Santa Barbara CA	77	8	0	0	1	0	1	0	2	51	30 Aug
*Anthony Markewicz, Camp Morton Man	69	8	0	0	14	1	0	0	15	72	31 Dec
Morris Sorensen, Emsdale & Bala Ont	64	5	13	0	13	1	0	0	14	68	24 Jul
*Ken Simon, West Palm Beach FL	40	11	5	0	6	0	0	0	6	66	1 Jun
*Ken Simon, West Palm Beach FL (QSL)	8	5	2	2	3	0	0	0	3	66	1 Jun

Reaction to our alternate rankings by Saturation (or, Total Political Units, as Richard Wood suggests) has been mixed--which means we'll go on doing it. Clearly sheer number of stations is not the only valid measure of a DXer's achievement. Adding one political unit may become more difficult than adding 100 stations. Perhaps an even better measure would be the average distance of all stations received by each propagation mode. We'll gladly publish any such figures; include locals and groundwave with tropo and make the computation yourself. For our new members, we explain again the scoreboard; the first four columns deal with stations; the next five with political units (states, DCs--indicated by +--states, other countries.) YB = year began DXing from the location in question. You need go back only as far as the first reception which has not been duplicated since. As of means the date to which the information has been corrected; it cannot be in the future! 88-92 means domestic and foreign stations received in the US educational band (88.00-91.99 Mhz). MS means meteor scatter propagation; do not include lightning scatter which is entirely different. \* means update required by next deadline (11 Jan) or listing will be dropped. Much more detailed criteria appear in the New Member Packet.

## CHANNEL 82 TV DX RECORDS

Call	Location	Miles	Dxer, Location	Primary
K82BM	Coalinga CA	100	Dennis Smith, Sequoia Crest CA	KQSD-9
K82BM	Huron CA	95	Dennis Smith, Wasco CA	KQSD-9
K82AF	Cass Lake MN	330	Fred McGormack, Des Lacs ND	WDSM-6
K82AQ	Grand Portage MN	265	Bill Draeb, Kewaunee WI	WDSM-6
K82AJ	International Falls MN	330	Fred McGormack, Des Lacs ND	WDSM-6
K82BB	Seiling OK	70	Glen Neal, Sayre OK	WKY-4
K82BK	Hunt etc TX	70	Glenn Hauser, Von Ormy TX	KSAT-12
K82AZ	Memphis etc TX	60	Glen Neal, Sayre OK	KGNC-4
K82AK	Miami TX	60	Glen Neal, Sayre OK	KFDA-10

Auroral TVDX: Bob Cooper points out that Doppler and intercarrier disrupt Au TV audio. We say it's easily overcome! Simply inject a video carrier with a signal generator or short-wave/FM receiver, or monitor the TV audio IF directly on a nearby VHF radio tuned around 40-41 Mhz. Next time aurora hits, you northerners should try this, and clean up!

# STATISTICS

November 1973

## CHANNEL 7 TROPO TVDX RECORDS

Call	Location	Miles	DXer, Location
WGIQ	Mt Cheaha S.P. AL	805	Glenn Hauser, Von Ormy TX
KATV	Pine Bluff AR	770	John Parillo, Girard OH
KABC-	Los Angeles CA	860	Doris Johnson, Glenview WA
KVIP-	Redding CA	420	Ray O'Rear, Zillah WA
KGO-	San Francisco CA	315	Charles Wood, Ashland OR
K97HA	Springville CA	45	Dennis Smith, Wasco CA
KLZ-	Denver CO	65	Glenn Hauser, Leadville CO CATV
WDEL-	Wilmington DE	195	Robert Cooper, Ithaca NY
WMAL-	Washington DC	460	Dave Egan, Valleyfield PQ
WJCT	Jacksonville FL	1020	Glenn Hauser, Von Ormy TX
WCKT	Miami FL	1145	Pat Dyer, San Antonio TX
WJDM-	Panama City FL	900	Ferdinand Dombrowski, Watertown WI
KTVB	Boise ID	205	Gordon Simkin, Idaho Falls ID
WNCB	Chicago IL	685	Robert Cooper, Oklahoma City OK
KHQA-	Quincy IL	975	John Cody, Middletown CT
WTVV	Evansville IN	725	Don Ruland, Houston TX
KWNL-	Waterloo IA	985	John Cody, Middletown CT
KAYS-	Hays KS	745	Bill Meers, Lagrange KY
KOAM-	Pittsburg KS	620	Bill Draeb, Kewaunee WI
K97GF	Topeka KS	260	Robert Cooper, Oklahoma City OK
KPLC-	Lake Charles LA	760	Enrique Veazey F., Garmen Camp
WENT	Bangor ME	230	Gene DeLorenzo, Hyannis MA
WNAC-	Boston MA	410	Robert Seybold, Dunkirk NY
WLAV-	Grand Rapids MI	345	E. Gustagson, Keokuk IA
WXYZ-	Detroit MI	745	Ed Rugel, Independence KS
WPBN-	Traverse City MI	665	Les Prus, Manhattan KS
KCMT	Alexandria MN	655	Glenn Hauser, Enid OK
WDAM-	Hattiesburg MS	725	Morrie Goldman, Chicago IL
KMNE	Bassett NE	480	Robert Cooper, Oklahoma City OK
KETV	Omaha NE	875	David Nieman, Buffalo NY
KOAT-	Albuquerque NM	700	Carl Dabelstein, Omaha NE
WKBN-	Buffalo NY	540	Bruce Metzner, Madison WI
WVNY-	Watertown NY	610	Dave Janowiak, Greenfield WI
WABC-	New York NY	845	Barney Rauch, Peoria IL
WITN-	Washington NC	580	Jeff Kadet, Needham MA
WHIO-	Dayton OH	1035	Nick Bocker, Brandon Man
WTRF-	Wheeling WV (OH)	935	Robert Cooper, Arcadia OK
K97FX	Gage OK	135	Robert Cooper, Oklahoma City OK
KSWO-	Lawton OK	395	Dave Pomeroy, Overland Park KS
KOAC-	Corvallis OR	160	Eddie Albright, Medford OR
WITY	Charleston SC	165	Joe Kureth, Southern Pines NC
WSPA-	Spartanburg SC	695	Bill Draeb, Kewaunee WI
WBBJ-	Jackson TN	485	Robert Cooper, Oklahoma City OK
KVII	Amarillo TX	495	Bedford Brown, Hot Springs AR
KTBC-	Austin TX	1000	Don Ruland, Holly Hill FL
KOSA-	Odessa TX	750	Ron Le Blanc, Marrero LA
KLTV	Tyler TX	690	Bill Meers, Lagrange KY
KUED	Salt Lake City UT	205	Gordon Simkin, Idaho Falls ID
WDBJ-	Roanoke VA	635	Bill Draeb, Kewaunee WI
KIRO-	Seattle WA	380	Charles Wood, Mt Ashland OR
WSAU-	Wausau WI	765	Robert Cooper, Oklahoma City OK
'GBMIT'	The Pas Man	0	Anthony Markewicz, The Pas Man
GJAY-	Winnipeg Man	215	Fred McCormack, Des Lacs ND
'GBFST'	Sturgeon Falls Ont	270	Robert Seybold, Dunkirk NY
CKRT-	Riviere-du-Loup PQ	280	Dave Egan, Valleyfield PQ
CHLT-	Sherbrooke PQ	255	Fred Nordquist, N Syracuse NY
CKOS-2	Garlyle Lake Sask	110	Fred McCormack, Des Lacs ND
CKMJ	Marquis Sask	250	Fred McCormack, Des Lacs ND
XRLD-	Mataamoras Tams	970	Robert Weems, State College MS
XHGO-	Tampico Tams	490	Glenn Hauser, Von Ormy TX
CMBA-	Habana Cuba	705	Ed Bourgeois, Norco LA
	Chepé Panama	55	Dave Swanson, Margarita CZ
WRIK-	Poncé PR	115	Robert Cooper, Frederiksted VI

Logos



Very few changes in the past 29 months; we still have too many records under 500 miles. Please check your log and send in record breakers! ...until the next, 73 de Glenn



# WESTERN TV DX

Dennis Smith

450 Poplar Ave.

Wasco, CA 93280

Deadlines: 5th of each

month until further notice

November 1973

A bit of tropo here and there, but nothing really yet approaching the big fall season that is usually expected. A lot of MS hunting by some, though, has produced many new loggings of stations not seen by Es or tropo. As for Es, September produced almost none, apparently—it was reported only from south Texas and that was poor. (An 'off-season' session showed on 3 October which seemed to be good, however.) Overall in the West, this Es season was short and ended early (early August in most areas). It was not a good season in the widespread sense, except in the South, where sporadic-E occurred occasionally through the winter and spring. There were many high-MUF openings in the southern United States (such as south Texas) but not as many openings (and fewer high-MUF) in central California, Oklahoma, Kansas, etc. Openings and high MUF's were even fewer yet (a poor season) in such areas as Idaho, North Dakota and Manitoba.

You may wish to add the following changes to our past Es charts. In the September column, add 1 reporter each to dates May 23,26,27,28; June 1,3,5,10,11,12,13,15. In October column, add 1 reporter to July 6,8,10,11,12,16,22,29.

Es	dats	Avg.	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	20	21
Nr.	reporters		1	1	1	3	7	2	1	3	1	3	1	3	1	3	1	1	1	1	1
MUF	at least	4	4	4	q0.3		q4.3	4	3	q0.5	8q.7	q8.5	3	q4.p	6	6	3	2	3	4	3
22	23	24	25	26	27	28								Sept	13	20	24	26	27	Oct	3
1	1	1	1	1	1	1									1	1	1	1	1	1	1
6	q8.a	6	8.q	3+?	2	3									3	3	2(q)	4	2		6

Fat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228 (28 Aug-3 Oct) (CST)

Receiver: 1971 model Penncrest 9-inch black-and-white

Antennas: Archer V-100 and 8-bay UHF bow-tie at 20 feet

29tr 2301 KRBC- 9 TX 220 19tr 0940 KSEL-28 TX 340 (21)tr 2330 WFAA- 8 TX 250  
 58tr 2013 WFAA- 8 TX 250 (spotty as late as 1300) 26tr 1305 YSR - 2 ELS 1200  
 2tr 2322 KRBC- 9 TX 220

2302 WBAP- 5 TX 240	0040 KLBK-13 TX 340	1314 TGV - 3 Guat 1120
2304 WFAA- 8 TX 250	KCBD-11 TX 340	1355 f/out

11tr 2112 KERA-13 TXt 250 2120 KMID- 2 TX 275 1715-2030 Spanish 2-4  
12tr 0015 KDFW- 4 TX 250 20tr 0035 KCRD- 1 TX 250

12-0015 KDFW-4 TX 250 20-0035 KCBF-11 TX 340 (severe storms here  
2225 KVRL 26 TX 195 KSEL-28 TX 340 limited DX efforts

13Es2000 unIds Spanish KLBK-13 TX 340  
-25 2 3 E-11/13 Cuban2 2/2000 1800 UTC with QRN)

tr2105 KVRL 26 TXt195 -55 tpw/"Cuba" on it 27Es 1430-50unIds 2 (south)

2327 WFAA- 8 TX 250 21tr 0801 WFAA- 8 TX 350 01tr 0200 1200- 6 NL t 275

KTVT 11 TX 240 KERA-13 TX 250 flux noted, longest

KDFW- 4 TX 250 1130 KVRL 26 TX 105 bursts apx 1 minute  
KTXS-12 TX 230 2255 WAFB- 9 LA 450 230810 KSTP 28 TX 230

17tr 0012	KTXS-12	TX 230	WGNO-26	LA 515	KCBF-11	TX 340
18tr 2120	KSLA-8	TX 110				

18	2120	KSWB	8	NM	440	WRBT	33	LA	450	KLBK	13	TX	340
	2125	KMID	2	TX	275	KVRL	26	TX	195	2128	KMID	2	TX

2135	KCBD-11	TX	340	2120	KMID-	2	TX	275
2200	KVRL-26	TX	195	2310	KMOM-	0	TX	205

2200 KVRU 26 TX 195  
2328 KOSA- 7 TX 280

At the end of the reporting period some good tropo showing up again. Es since August generally very poor, but

severe storm! But, as I prepare this...more:

Oct 3 Es 1050 WPSX- 3 PA 1370  
1100 KDKA- 2 PA 1290

So, in the midst of a welcomed

unIds 2-6  
1229 KUTV 2 UT 1080

73, WA5IYX.

So, in the midst of a welcomed  
Es opening, I must get this off.  
73. WA5IYX.

# WESTERN TV-DX

November 1973

Bob Cooper, Jr., Route 5, Box 782, Guthrie, Oklahoma 73044 (23May-8Sep) (CDT)

I have been slightly reactivated from a new QTH since late in May. Very slowly the antennas have been installed and new receiving gear hooked up. Until late in July, equipment installed and time available didn't net much. Being gone from home an average of two days out of every three during that period didn't help much either! (Time in (s) is tune-in time)

during that period didn't help much either: Time									
M23	Es(2150)	WMAR-2 MD	(13) tr	2130	KDNL-30 MO	(18/tr)	0555	KLFY-10 LA	
	2205	WUND-2 NC	16 tr	0630	KETV 7 NE		0556	KHOU-11 TX	
26	Es(1730)	WSAV-3 GA		0640	KNOE-8 LA		0600	KNOE-8 LA	
	(1900)	WEDU 3 FL	(Gone Jun17 to Jul.3)				0610	KTRK-13 TX	
27	Es(1655)	WSVA-3 VA	4 tr(2140)	KDNL-30 MO			KPRC-2 TX		
	(1800)	KYW-3 PA	6 tr	0005	WHBQ-13 TN	MS	0628	WLW-D 2 OH	
	(1900)	GKVR-3 Ont		0037	KMEG 14 IA		0629	WMT-2 IA	
28	Es(1610)	GKVR-3 Ont			KETV 7 NE	tr	0650	KVRL-26 TX	
	1730	WJMN-3 MI		Es(1050)	WGBD-2 SC		KHTV 39 TX		
	KDAL-3 MN		tr	0704	KCBJ-17 MO mi.	19 tr(2025)	WAPT 16 LA		
	1740	WITI-6 WI		0728	WSJV 28 IN(722)		2048	WMAV 18 MS	
	1753	WDSM-6 WI		0732	WUHQ 41 MI(708)			WMAA 29 MS	
	1827	WTMJ-4 WI		0733	WKBD-50 MI(807)		(2300)	KCBJ-17 MO	
	1830	WJMN-3 MI			WAKR-23 OH(837)	20 tr(0610)	KALB-5 LA		
Jnl	Es(1915)	XEW-2 DF		0744	WKNX-25 MI(800)		KPRC-2 TX		
	XEZ-3			0748	KXNE-19 NE(486)		KNOE-8 LA		
3	Es(0720)	weak to ch4		0750	WFLD-32 IL(680)	21 tr(0612)	KNOE-8 LA		
	1410	KYW-3 PA		0805	KHNE-29 NE		(1935)	KCBJ-17 MO	
	1415	WTAR-3 VA		0808	KVPD-21 IA		(2155)	KDNL-30 MO	
	(1630)	WWAY-3 NC		0825	KCBJ-17 MO		(2243)	WAPT 16 LA	
		WRBL-3 GA		0855	WCIV-26 IL(680)	22 Es(1220)	WMAR-2 MD		
	(1740)	WSAV-3 GA		2014	WGTV-20 MI(900)	tr "	KCBJ-17 MO		
5	Es(1500)	XHIA-2 Coah		Es	2135	KID-3 ID	KDNL-30 MO		
	(1600)	WERZ-2 LA		2200	CFAC-2 Alta	25 MS	0619	WMAR-2 MD	
	(2200)	WRBL-3 GA	tr	2310	KCBJ-17 MO		0621	WBAY-2 WI	
9	tr(0040)	WEEK-25 IL	7 tr	0622	KHQA-7 MO	26 MS	0545	WLW-D 2 OH	
	WMBD-31 IL			0646	KETV 7 NE	tr	0620	KHQA-7 MO	
	WKJG-33 IN(753)			(0845)	KDNL-30 MO		WRAU-19 IL		
	WMLU-19 IL			(1730)	KCBJ-17 MO		0631	WMBD-31 IL	
	KOMU-8 MO				KDNL-30 MO		0640	WICS 20 IL	
	WGEM-10 IL	9 tr	0535	KALB-5 LA			0646	WEEK-25 IL	
10	Es	2120	CKCK-2 Sask	0636	KGIN-11 NE	27 MS	0526	WLW-T 5 OH	
	2130	CEMPT 3 Man		0653	KHAS-5 NE	tr	0548	KALB-5 LA	
		KRTV 3 MT	10 MS	0555	KSTP-5 MN		MS	0628	WBAY-2 WI
	2200	CFAC-2 Alta	Es	0625	GJOX-3 (2458mi)	29	MS	0635	WCIV 4 SC
	KREM-2 WA			Argentia, Nfld.		tr	0645	KETV 7 NE	
	2230	KORK-3 NV		(double-hop E)		Es	1357	WTAR-3 VA	
	XHBC-3 BCN			0631	WBAY-2 WI	30 MS	0524	WLW-D 2 OH	
	2245	KTVK 3 AZ		0635	WFRV-5 WI	tr	0548	KALB-5 LA	
11	Es	0030	CPCN-4 Alta	0655	CFVR-3 Ont	MS	0556	WCYB-5 VA	
	0055	CHAT-6 Alta		0702	WKZO-3 MI		0620	WMT-2 IA	
	0110	KTVU 2 CA		0720	WKYC-3 OH	E?	0628	WMC-5 TN	
	0120	KPIX 5 CA		2130	WTAR-3 VA	31 MS	0445	WLW-T 5 OH	
		KRON-4 CA	tr	2156	KDNL-30 MO		0500	WGR-2 NY	
	0132	GJLH-3 (both	11 MS	0528	WLW-D 2 OH		0519	WSB-2 GA	
	CPCN-5 200W)		Es	2155	WESH-2 FL		0524	WLW-D 2 OH	
	(both Burmis, Alta)				WPBT 2 FL		0535	WCIV 4 SC	
	0130	KLEW-3 IDWA)			WEDU 3 FL		0600	KDKA-2 PA	
	0150	KXLY-4 WA	15 tr	0655	KETV 7 NE	Ag1 MS	0505	WPTV 5 FL	
	0200	KHQ-6 WA		0715	KHTL-4 NE	MS-0546	KALB-5 LA		
	0218	KCRA-3 CA		2055	KDNL-30 MO	tr-0547	KALB-5 LA		
	0310	KUTV 2 CA	16 Es(1845)	XEW-2 DF		tr	0630	WMC-5 TN	
		KNXT 2 CA		XEZ-3		tr	0630	WMC-5 TN	
12	Es(2120)	XHBC-3 BCN		(2130)	WAPT 16 LA	2	MS	0631	WKRQ-5 AL
		KORK-3 NV	17 tr(0855)	KDNL-30 MO		3	MS	0555	WLW-T 5 OH
	2200	KNXT 2 CA		(2120)	KCBJ-17 MO	4	MS	0621	WCIV 4 SC
		KTVK 3 AZ	18 MS	0504	WBBM-2 IL	tr	0640	KCNB-6 TX	
13	Es(2020)	WEDU 3 FL		0512	WJBK-2 MI		1923	KORK-3 NV	
		WPBT 2 FL		0533	WLW-D 2 OH			XHBC-3 BCN	
	2130	WESH-2 FL	tr	0552	KALB-5 LA		1956	KTVK 3 AZ	



5 MS 0530 WLW-T 5 OH	(10) MS 0531 WCIV 4 SC	(14) tr 2250 WTCN-11MM675)
0542 WRAL- 5 NC	tr 0530 KALB- 5 LA	2310 WHO -13 IA
0547 WPTV 5 FL	0604 KTRK 13 TX	2323 WAEO-12WI(821)
0555 WKRG- 5 AL	11 MS 0430 WRC - 4 DC	2350 WGEN-10IA(90)
0623 WCIV 4 SC	MS053630 WXXE- 8VA(931)	tr 0007 KWWL- 7IA(670)
Es(1038)WTAR- 3 VA	MS 0551 WROC- 8NY(163)	0012 WHO -13 IA
1055 KBOI- 2 ID	tr 0601 KNOE- 8 LA	0026 KRNT- 8 IA
(1842)CKCK- 2 Sask	MS 0605 WCIV 4 SC	0033 WEAU-13WI(670)
1900 CBWFT 3 Man	tr 0635 KTVV 36 TX	(tr) 0050 WMT - 2IA(540)
tr 2201 WDXR-20KY(505)	0650 KVUE 24 TX	0051 WHBQ-13 TN
2206 WAAV-31AL(623)	0708 KGBJ-17 MO	0104 KETV 7 NE
WHNT-10AL( " )	2127 KDNL-30 MO	0117 KMSP- 9MN(675)
2208 WAPT 16 LA	12 MS 0446 WRAL- 5 NC	(tr) 0120 KMOX- 1MO(458)
6 MS 0433 WLW-T 5 OH	0530 WTVR 6 VA	0140 KAIT- 8 AR
tr 0511 WLAC- 5TN(605)	0552 WJIM- 6 MI	0156 WQAD- 8 IL
0516 WLOS-13NC(820)	0558 WTVN- 6 OH	0615 WHO -13 IA
0530 WTRF- 7WV(957)	0610 WCIV 4 SC	17 MS 0507 WPVI- 6
MS 0540 WCIV 4 SC	tr 0950 KRCG 13 MO	0534 WJAC- 6 PA
0555 WREG- 3 TN	KCBJ-17 MO	0543 WJIM- 6 MI
tr 0618 WHBQ-13 TN	MS 1440 WJIC-11PA(990)	tr(2215)KMEG 14 IA
0623 KHQA- 7 MO	MS150730 WBAL-11MD(153)	(2300)KETV 7 NE
2205 KCBJ-17 MO	" 1602 WBAL-11 MD "	18 tr(0815)KHNE-20 NE
7 MS 0440 WRAL- 5 NC	tr(2228)WAPT 16 LA	(0855)KXNE-19 NE
0530 WWSB- 5 OH	13 MS 0445 WTVR 6 VA	(0856)KMEG 14 IA
8 MS 0514 WLW-T 5 OH	MS 0535 WTOG-11VA(951)	0856 K31AA SalinaKS
0519 WLAC- 5 TN	0543 WTVN- 6 VA	0850 K6022Neb.ETV
tr 0535 KALB- 5 LA	14 tr 2120 KDNL-30 MO	xtr(no listing)
MS 0637 WGHP- 8NC(48)	WCEE-23IL(641)	0850 K18AA SalinaKS
Es(1843)WWAY- 3 NC	2130 KMEG 14IA(505)	1600-2015 KHNE-29
9 MS043330 WNNM- 5 MI	KVFD-21IA(505)	1608-1616 KMEG 14
0448 WLW-T 5 OH	2145 KDUB-40IA(500)	19 tr 0830 KDNL-30 MO
10 MS044230 WAGA- 5 GA	2156 WMTV 15WI(665)	0840 WKOW-27WI(665)
0451 WRAL- 5 NC	WKOW-27WI( " )	0852 WHO -13 IA
0459 WLW-T 5 OH	2200 WFNE-38WI(788)	0905 WHBQ-13 TN
0513 WRC - 4 DC	2230 KDIN-11 IA	2153 KDNL-30 MO
tr 0510 KNOE- 8 LA	2231 WAPT 16 LA	tent WDHQ-24, WGTE-30 OH(865)

(Ordinarily, I do not favor holding over a portion of a report to the next issue, as its news value can cool off too much. However, because of unusual pressures at this time, I will print next time the remainder of Bob's 23 May - 8 Sept report (which reached me after the October column was sent in because of excess forwarding time) and his report for 8 Sept - 2 Oct. Apologies, Bob. dps)

Richard Allen, Billings, Oklahoma 74630

(28 Aug - 28 Sep)

(CST)

Receiver: 1960 model Philco-Ford 12-inch black & white

Antennas: Winegard 11-el VHF log & Archer 44-el UHF log, apx 30 ft.

20 tr 0555 KPFA- 5 FtSmith AR N 190	18 tr 0525 KAUZ 6 WichitaTX 190
32 tr 0610 KDFW- 4 Dallas TX N 260	0530 WBAP- 5 Ft.Worth TX 255
5 MS 0506 WCBQ- 2 CharlestonSC 1030	10 MS 0450 WCBQ- 2 CharlestonSC 1030
tr 0522 KPDB- 8 Sayre OK N 145	20 tr 0450 KCFD- 8 Sayre OK 145
(relaying KPDA-10)	0515 KGLD 11 GardenGtyKS 205
6 tr 0438 KMBC- 9 KansasCity MO N 250	0520 KVII 7 Amarillo TX N 260
12 MS 0452 WBBM- 2 Chicago IL 630	21 tr 0430 KGNC- 4 Amarillo TX N 260
13 MS 0436 WTTV 4 BlmingtonIN N 640	0450 KPDA-10 Amarillo TX N 260
tr 2106 KTVT 11 Ft.Worth TX 255	0450 KFDW-12 Clovis NM N 350
2111 KERA-13 Dallas TX 260	(relaying KPDA-10)
16 tr 0535 KYTV 3 SpringfieldMO N 245	0507 KOMC 8 McCook NE N 285
0555 WDAF- 4 KansasCity MO N 250	0600 KAYS- 7 Hays KS N 200
17 MS 0444 WCIV 4 CharlestonSC N1030	20 MS 0402 WJBK- 2 Detroit MI N 875
gw 1715 KOKH 25 OklahomaCity OK M 65	

New stations underlined: new mode of propagation broken line.

Totals to date: 94 stations (including 9 MUF & 1 translator) from 29 states, 4 provinces and 4 estados. September has been a good DX month, with 16 new stations logged via tropo and MS. No Es activity was observed during the reporting period. Good DX-ing & 73s.

Dave Pomeroy, 5231 West 31st Street, Topeka, Kansas 66614 (Jul-Sep) (GDT)									
<u>16</u>	tr	2400	KMEG 14 IA	(19 tr)	0702	WLS - 7 IL N	(20 tr)	2400	WMBD-31 IL
			KHQL- 8 NE			WGN - 9 IL N			KCAU- 0 IA
<u>7</u>	tr	0800	KHNE-29 NE			WMBD-31 IL	<u>21</u>	tr	0030
		0830	KHAS- 5 NE		0725	WIGD 15 IL			WMT - 2 IA
		0900	KVPD-21 IA		0730	WICS 20 IL		0135	WEAU-13 WI N
		1000	KRNT- 8 IA		0745	WOC - 6 IA N	<u>24</u>	tr	2200
		1545	KDIN-11 IA		0830	WTTW 11 IL N	<u>25</u>	tr	1100
<u>8</u>	tr	0750	KTVG 6 KS N	<u>26</u>	tr	0735	KGLD 11 KS		1230
Es		1225	KUTV 2 UT		0830	KFDO- 8 OK N			KVPD-21 IA
		1230	KID - 3 ID	<u>27</u>	tr	0830	WAND-17 IL	<u>4</u>	tr
	tr	1730	KCAU- 9 IA			WMBD-31 IL		0745	KIIN-12 IA
		2240	WOI - 5 IA			KDNL-30 MO		0800	WMTV 15 WI
<u>11</u>	tr	0100	KMTC 27 MO			WEEK-25 IL		0825	KDIN-11 IA
			KELO-11 SD		0900	WILL 38 IN N			KWWL- 7 IA
		0800	KMEG 14 IA			WICS 20 IL			KVPD-21 IA
			WAND-17 IL			WIGD 15 IL	<u>6</u>	tr	0830
		0830	KDNL-30 MO	<u>30</u>	tr	0800	KCAU- 0 IA		0930
			WEEK-25 IL			KELO-11 SD	<u>20</u>	tr	1600
<u>12</u>	tr	0725	KROC-10 MN N		0830	KMEG 14 IA		1800	KTVG 6 KS
Es		0755	KORK- 3 NV N	<u>Aug</u>		KVPD-21 IA		1830	KOMC 8 KS N
	tr	0825	KVPD-21 IA	<u>20</u>	tr	KVPD-21 IA		2330	KLOE-10 KS N
<u>19</u>	tr	0655	WEEK-25 IL			KMEG 14 IA		2345	KBTW 9 CO N
			WNDU-16 IN		2030	WEEK-25 IL		2345	KIZ - 7 CO N
			WSBT-22 IN		2400	WRAU-19 IL	<u>21</u>	tr	2400
		0700	WAND-17 IL			WICS 20 IL		0700	KMEG 14 IA
						WIGD 15 IL			KGLD 11 KS
									KTVG 6 KS

This is Topeka DX for July-September. (No DX in June, Dave? dps)  
 On Sept 20, a little tropo to the west which is quite unusual here with Denver seen for the first time via tropo. I never saw it in Kansas City or Lawrence in 20 years. Antenna raised from 6 to 20 feet above roof. That helps. Have installed a UHF parabolic antenna at KTWU (on a hill)--so, I need a good tropo opening to the east. Best wishes.

Les Frus, 1615 Pierre Street, Manhattan, Kansas 66502 (Aug-Sept) (GDT)												
<u>4</u>	Es	2303	WESH-	2	FL	<u>10</u>	Es	1025	WUND-	2	NC	Perseids shower peak; many
			WSB -	2	GA			1100	WMAR-	2	MD	bursts ch2-3, several on 5;
<u>5</u>	Es	1145, 1700	2	unIds	<u>11</u>	Es	0040	CKSA-	2	Alta		up 0500, concen on 5, 0600+,
		1830	CBFT	2	PQ			(nx, movie, off 0208)				much TVI from local ham; he &
		1930	CKC01-	2	Ont			0105	KYW -	3	PA	WDAF & KCMO 5 on 0630, so quit.)
<u>7</u>	tr	0018	KETC	0	MO			0217	unId	3		<u>20</u> tr 2000
			(Wgate, 0048, 6 off)			<u>12</u>	MS	0550	WGR -	2	NY	KTVO 3 MO
												2030 KRNT- 8 IA
<u>Aug 22:</u> antenna system dismantled.												
<u>Aug 24:</u> temporarily reinstalled VHF conical & UHF bow-tie for tropo:												
2000 WOW-6 NE, KETV 7 NE.												

Sept 1: new antennas installed, consisting of three ants. on 13-ft plumbers pipe (10 ft is above Alliance T-45 rotor): top- CM 1673 10-el. HB yagi(35'), center- CM 42516 7-ft UHF dish, bottom- slightly modified single conical (improved for LB). No plans yet for a tower here.

Sept 2: in dead condx, UHF range is about 100 mi. KCPT-10 & KBMA-41 MO can almost always be received--just barely w/frame bar. KTSB 27 KS is always strong, local xltr K70EN not on. .... Stns carrying Jerry Lewis telethon: KMTV 3 MO, KHTL-4 NE, KMBC-9 MO, KAKE-10 KS, WIBW-13 KS, (KPRC2?)

4 tr (hwy fog) no signals	10 tr (light fog)	(11) tr 0045	WBBF- 4 IL
0720 KTVO 3 MO	0510 KMOX- 4 MO		WOW - 6 NE
KETV 7 NE	0515 on: KTVH 12,	0109	WAND-17 IL
(both w/Id-TPs)	KCMO-5, WOW-6, KARD-	0125	WQAD- 8 IL
0725 KRNT- 8 IA	3, KMBC-9, KCKT 2,		(s/off 0130)
WOW - 6 NE	WIBW-13, WDAF-4.	0130	KMOX- 4 MO
0755 KGLD 11 KS N	(slight tropo,	0510	KMOX- 4 MO
(weak: peak s.w.)	under 150 mi.)		(movies, s/off 0520,
KCKT 2 KS	0000 KDIN-11 IA	3/4 CB, 0545s/on)	0515 & on: WIBW-13
-(gone 0805-0925)	(0005 "IEBN" Id, s/off,		KTVH 12, KCMO-5,
0820 KYNE-26 NE N	Id TP 0010-0145)		0550 & on: KMBC-9,
(Id TP)	0005 KETV 7 NE		WOW-6, KARD-3.
0932 KMEG 14 IA N	KRNT- 8 IA		
0937 KVPD-21 IA N	0040 KMTV 3 NE		



Sept 12 to 21: Sears 9" b&w broke down (raster on, no signal (VerA)). Couldn't find trouble, took to Sears service who diagnosed as open wire-wound resistor in tuner (the new tuner bought in Feb). Replaced it with resistor from the old tuner. Signal back but sensitivity low. Sent it back to shop. \$14 poorer. Meanwhile tropo comes and goes.

Sept 23 to 28: in Lincoln KS visiting brother-in-law and designing deep-fringe antenna system: a 60-ft Rohn 3SV self-supporting tower topped by 12-ft rotatable mast: top- Finco 5-el. ch-2 yagi, center- stacked pair Finco HB 10-el. yagis, bottom- Winegard SC-650 FM log-yagi. Receiver is a 1974 model 10" Zenith Chromacolor II! UHF antenna (4-bay bowtie) will be attached to side of tower at 58-ft level, to be replaced by dish if condx warrant. Nearest UHF stns are KTSB 27 Topeka east 150 mi and KBMA-51 KS City MO east 200 mi, so isn't much UHF to make effort worthwhile.

Sept 24: tropo, dense fog. Loggings in Lincoln KS (100 mi W of Manhattan). Rx is 1974 Zenith Chromacolor II: antennas were 7-el. LP aimed s.w., 10-el. ch-13 yagi aimed s.e., & 4-bay UHF bowtie hand-held near window. (24tr)2245 KCKT 2 KS mi:50 (24tr)2245 (KHAS:0007s/off) (24tr)2245 KTVH 12 KS 80  
KARD-3 KS 100 KETV 7 NE 180 KHOL-13 NE  
(both 0100s/off) KHQL-8 NE 180 2258 KCAU-9 IA 275  
KHTL-4 NE 75 KOLN-10 NE 150 (0030s/off)  
KHAS-5 NE 100 KGIN-11 NE 130 2345 KLINE-13 NE

Sept 25: tropo, fog, still in Lincoln. Didn't use UHF ant. till later in morning, hence no UHF so far. Tropo primarily in n.e. direction across eastern NE, northeast KS, & western IA. (Ants. aimed s.e. and s.w.)

025tr)0015 KMTV 3 NE 180 25tr)0110 WDAF-4 MO (s/off) (25tr)0700 KTSB 27 KS  
KAKE-10 KS 100 (s/off) KENE-29 NE  
WOW - 6 NE 180 0125 KWTW 9 OK 0715 KHTL-4 NE  
0025 KAYS-7 KS 70 0700 (KS) KENE str. hrd 2.1 ev. KHQL-8 NE  
KETV 7 NE 180 plus WOW - 6 NE 180 KHOL-13 NE  
KNME-7 NE (4813: Ided CBE-TP)  
0030 KUON-12 NE 150 WIBW-13 KS 180 0730 KMEG 14 IA  
(s/off) KVFD-21 IA 330 0800 KXNE-19 NE  
0100 WIBW-13 KS 180 KYNE-26 NE 0805 KBMA-41 MO  
(s/off; MIHTP-Id) (MIHTP w/Id) 0810 WAND-17 IL T

Sept 26: groundwave? (no tr. condx: in Lincoln) At 1100, K18AA 18 Salina KS, 100-watt xltr for KARD-3, logged at 40 mi w/indoor bowtie. Diffraction over large hill  $\frac{1}{2}$  mi away may be helping g.w. reception.

The Chromacolor II is a terrific receiver--extremely sensitive, and the 70-channel UHF detent tuner is truly fantastic. It takes a little longer to scan back and forth across the band, but it's well worth it. UHF sensitivity appears very good, judging from xltr logging above, plus surprise when I logged 150-mi UHF's on 25th without anything connected to or near the antenna terminals. When I hooked up the bowtie--WOW!

Oct 1: back in Manhattan. TV still in shop and they can't find the cause of poor sensitivity. It works ok on CATV but very poor on antennas. What a bite! New antennas and useless rx! Log totals at 264 and likely to stay that way unless I can rewire the lead-in to the family set and get a good picture there. I should have something working later in the month. Best of DX & 73.

Fred McCormack, Des Lacs, North Dakota 58733 (Aug-Sept) (CDT)

Equipment includes Heath GR-371MX receiver & Winegard CW-48 antenna

4h Es	1957 KOTI	2 Klam	OR 0333	1065	(5KEs)	1230 KOAI	2 Flag	AZ	4444	1030
	2028 WPSX	-3 Clea	PA	4444	1240	1358 KTVN	2 Reno	NV	4444	1085
	2138 WSAZ	-3 Hunt	WV	3343	1175	18 tr	0650 WDIO-10	Dulu	MN	3045 455
	2150 WLW-G	4 Colu	OH	3433	1080		0650 KCMT	7 Alex	MN	3444 330
	2201 WLW-D	2 Dayt	OH	3333	1035	S30 MS	0622 WLW-T	5 Cine	OH	1050
5 Es	0019 WCIA	3 Cham	IL	3333	860		tr	0655 KMSP	9 Mann	MN 3 45 460
	0030 KMC-X	4 St. L	MO	3344	865		0658 KDLO	-3 Flor	SD	3 45 310
wq	0030 WRRF	-4 Rock	IL		700		0700 KCMT	7 Alex	MN	3 45 330
Es	0036 KTVO	-3 Ottu	(MO)	4233	600		0800-1100	70-82	translators	
	1200 WREG	-3 Memp	TN	3344	1075			Benidji,	Cass Lake,	MN
	1215 CBUT	-2 Vanc	BC	4443	005			etc.		

The most disappointing DX season in memory continued with only one new logging in the last two months. My DX time has been extremely limited, but I believe that the usually good tropo of September did not occur due to weekly rain. 73.

Best of DX to all

Dennis

# EASTERN TV DX

Dave Pomeroy  
KTWU-Channel 11  
Signal Hill  
Topeka, Kansas 66604

As stated in the "publishers' notes..." column of the October issue of VUD, I will be stepping down" as editor in the spring of this column. This position is now open and I hope any interested members will contact me. The job does involve some work each month, but also has its rewards. I have definitely enjoyed meeting many TV-DXer's via the mails as well as those who have called and stopped by on their way through Kansas. For the DXer it helps learn call letters and station locations. I have enjoyed this chance to serve the club for the last four years and will be glad to assist the new editor as he takes over this position. Now for the important part of this column--the reports:

Peter C. Gennuso 636 Main Street Dunkirk, New York (EST)	
8-26 Tr 0330 WLUK-11 Green Bay, WI 3455N0475	9-4 Tr 0735 WKBN-27 Youngstown, OH 4555N0120
8-27 0200 WTMJ-4 Milwaukee, WI 2314N0450	0752 WYTV-33 Youngstown, OH 4555N0120
0225 WGN-9 Chicago, IL 1325N0450	2000 WUAB-43 Lorain, OH 1335R0140
0355 WBBM-2 Chicago, IL 2125R0450	9-5 0800 WBRE-28 Wilkes Barre 2335N0195
0400 WLS-7 Chicago, IL 1225N0450	0900 WCNY-24 Syracuse, NY 1221N0175
1330 WOTV-8 Grand Rapids, MI 3332R0360	9-10 0755-0950 WFMJ-21 WYTV-33 WKBN-27 WAKR
8-28 0138 WLUK-11 Green Bay, WI 4554R0475	9-15 0647 WKTV-2 Utica, NY 3352N0230
0208 WISN-12 Milwaukee, WI 4555R0450	9-23 1000 WBNS-10 Columbus, OH 3442N0275
0252 WITI-6 Milwaukee, WI 4454N0450	9-28 0940 WVIZ-25 Cleveland, OH 3455N0140
0255 WTMJ-4 Milwaukee, WI 4455N0450	0952 WUAB-43 Lorain, OH 3455R0140
0330 WBAV-2 Green Bay, WI 4454N0475	1002 WNEO-45 Alliance, OH 1125N0160
0340 WGN-9 Chicago, IL 3455R0450	1024 WKBF-61 Cleveland, OH 1125N0140
0250 WBNG-12 Binghamton, NY 2245N0180	1030 WCMU-14 Mt. Pleasant, MI 1325N0300
9-1 0236 WTRF-7 Wheeling, WV 3443R0200	1211 WNPE-38 Green Bay, WI 4555N0475
0332 CHNB-4 North Bay, Ont. 2323R0275	1216 WUCN-19 Bay City, MI 1325N0250
2200 W72AQ-72 Great Valley, NY 4455N0040	9-29 0255 CBOT-4 Ottawa, Ont. 3554N0270
9-3 0435 WNNY-7 Watertown, NY 3445N0200	1022 WKOW-27 Madison, WI 1425N0525
0450 WNY5-9 Syracuse, NY 2325N0175	1050 WKZO-3 Kalamazoo, MI 4553N0350
0700 WANE-15 Ft. Wayne, IN 3555R0325	1120 WUHQ-41 Battle Creek 4555R0320
0705 WKJG-33 Ft. Wayne, IN 2455R0325	1130 WJIM-6 Lansing, MI 4554R0275
0715 WNDU-16 S. Bend, IN 3455R0370	1135 WOTV-8 Grand Rapids 4554R0360
1925 WBGU-57 Bowling Green, OH 3455R0275	Total log now 145

Tom Yingling 221 Pinewood Road Dundalk, Maryland 21222 (EDT)  
"I got up my own antennas at last, with some DX'ing done. I'm now 4 to go to have 200 TV's QSL'd with 35 states. I was going to put a 5 foot dish, 20-element FM yagi, and a 14-foot LPV on the same rotor until I saw Ron's (LeBlanc) tower that fell. I have the dish by itself, and the FM and VHF on a different location which is nice if the V's are so strong they override the converter. I just point the LPV the other way. ... It was nice seeing you in the convention in August. I enjoyed the convention 100%." (take note, Bob dp)

6-5 Es 1800 WEDU-3 Tampa, FL 3333R	6-27 Es 0140 WCCO-4 Minneapolis (1110) 3333R
1800 TVN-6 Havana, Cuba 4444N	to WKY-4 Oklahoma City, OK 4444R
1800 WDSU-6 New Orleans, LA 4444R	0230 KDLO-3 Garden City, SD 4444R
1830 XEWB-6? Hermosillo, Sol. 3233T	Tr 0230 KDKA-2 Pittsburgh, PA 2222N
1900 KOTV-6 Tulsa, OK 4444R	0245 WTAE-4 Pittsburgh, PA 3333R
1900 KATC-3 Lafayette, LA 3333R	Es 1600 KTIV-4 Sioux City, IA 4444R
1900 WKRG-5 Mobile, AL 4444N	1800 KGLO-3 Mason City, IA 3233R
6-11 Tr 0130 WVEC-13 Hampton, VA 4444N	1820 WOI-5 Ames, IA (1120) 4444N
0200 WTVB-11 Durham, NC 3333R	1830 KCMO-5 Kansas City, MO 4444N
6-13 Es 1600 WJXT-4 Jacksonville, FL 4444R	1730 WDAF-4 Kansas City (1100) 4444R
to NPTV-5 W. Palm Beach, FL 3233N	1800 CKSO-5 Sudbury, Ontario 4444N
1830 WDBO-6 Orlando, FL 4444R	1820 WSAV-3 Savannah, GA (950) 3333N
1900 WUFT-5 Gainesville, FL 4444N	1900 WQOW-6 Omaha, NE 4444R
6-14 Tr 0050 WCMC-40 Wildwood, NJ 5555R	1910 KMTV-3 Omaha, NE 3333R
6-15 Es 1100 WKYC-3 Cleveland, OH 3222N	1930 WLUC-6 Marquette, MI 4444N
to WJBK-2 Detroit, MI 2222N	1900 WREC-3 Memphis, TN 4444R
1230 WWSJ-4 Detroit, MI 3333N	1930 KYTV-3 Springfield, MO 4444N
6-22 Tr 2000 WNYC-31 New York, NY (200) 3333R	7-25 Tr 2400 WHAG-25 Hagerstown, MD 5555N
to WNJT-52 Trenton, NJ 4444R	2400 WAKR-23 Akron, OH (240) 3233N
2400 WNJM-50 Montclair, NJ (180) 4444N	7-29 0630 WTVB-11 Durham, NC (230) 3333R
WNJB-58 New Brunswick, NJ 4444N	8-3 0630 WITN-7 Washington, NC 4444R
6-27 0100 WCB5-2 New York, NY 4444R	9-24 2300 WYAH-27 Portsmouth, VA 5555R
Es 0140 KTEW-2 Tulsa, OK 5555N	2345 WUNK-25 Greenville, SC 3333R
to WMT-2 Cedar Rapids, IA 4444N	2400 WRDU-28 Durham, NC (230) 4444R
0230 KMTV-3 Omaha, NE (1150) 4444N	

(Continued on following page)



## Tom Yingling (continued)

9-25 Tr 0030	WHRO-15 Hampton, VA	4444R	10-1 Tr 0300	WUTV-29 Buffalo, NY	3344R
9-26	2100 WNYE-25 New York, NY	2222T	0400	WTAJ-10 Altoona, PA (190)	3213N
9-27	0030 WUNK-25 Greenville, SC	3333R	0530	WHTN-13 Charleston, WV	2323T
	0045 WVIA-44 Scranton, PA(210)	3333N	10-2	2100 WICZ-40 Binghamton, NY	4544R
10-1	2400 WAKR-23 Akron, OH	3333R		2200 WENY-36 Elmira, NY	3333R
	to WSEE-35 Erie, PA	2222N		2200 WBJA-34 Binghamton, NY	4444R
	0300 WQLN-54 Erie, PA	3233N		(also Philadelphia & Harrisburg, PA)	

## Robert B. Frantz 4380 N.W. 42nd Street Ft. Lauderdale, Florida 33313

5-19 Tr 1030 WMFE-24 Orlando, FL(175) 5-20 0930 WCJW-20 Gainesville, FL(280) WBBH-20 Fort Myers, FL(115) 0940 WTVX-34 Ft. Pierce, FL(90) 0945 WXLN-40 Sarasota, FL(160) 0950 WTOG-44 Tampa, FL(180) 5-21 0800 UNID-26 "WVOM-26 New Orleans--I think. Very snowy."

## Gordon Nelson 48 Hardy Avenue Watertown, Massachusetts 02178 (EDT)

"Have just begun serious VHF/UHF DX'ing in an attempt to gather data on propagational effects such as Es which may be of use for us MW fanatics. Equipment includes a 7 foot dish and home-brew UHF converter plus specialized equipment for freq measurement and high precision direction finding. Local QTH is very unfavorable: within 4 miles of locals 2-4-5-7-38-44-56; enough RF around here to power the receivers..."

7-31	2000 WXTV-41 Newark, NJ	8-4	0053 WMVA-41 Windsor, VT	8-7	2348 WCMC-40 Wildwood NJ
8-1	1134 WKBS-48 Philadelphia	8-6	1300 WNYC-31 New York City	8-8	0003 WETK-33 Burlington
	1207 WHNB-30 New Britain		1725 WEDH-24 Hartford, CT		0045 WCPB-28 Salisbury
	1230 WMHT-17 Schenectady		2159 WLIW-21 Garden City NY		0056 W71AB-71 NYC WPIX
8-3	0950 WTAJ-29 Philadelphia		2220 WNJS-23 Camden, NJ		0100 W69AB-69 NYC WOR
	1022 WKBS-48 Philadelphia	8-7	2100 WNUJ-47 Newark, NJ		0101 W64AB-64 NYC WNEW
	1035 WNEP-16 Scranton, PA		2101 WXTV-41 Patterson NJ		0105 W57AB-57 NYC WNBC
	1129 WBRE-28 Wilkes-Barre		2102 WBOC-16 Salisbury MD		0147 WGBY-57 Springfield
	2130 WHCT-18 Hartford, CT		2315 WYAH-27 Portsmouth VA		0142 WCTB-71 Bridgeport
	2138 WPHL-17 Philadelphia		2325 WNJM-50 Montclair, NJ	8-22	0137 WHP-21 Harrisburg
8-4	0050 WEDW-49 Bridgeport CT		2327 WNJN-52 Trenton, NJ		0140 WDAU-22 Scranton, PA

## Bill Thompson 1907 Seneca Street Buffalo, New York 14210 (EDT)

8-8	Tr 0114	WANE-15 Ft. Wayne, IN(360)	3555N	8-29	Tr 3345	WKAG-33 Ft. Wayne, IN	3345R
	0115	WBGU-57 Bowling Green, OH	R	8-30	1458	WDHO-24 Toledo, OH	3342N
	0119	WKBD-50 Detroit, MI	3535R	8-31	0625	WSYE-18 Elmira, NY	4555N
8-15	0208	CJOH-13 Ottawa, Ontario	3354N		0629	WDAU-22 Scranton, PA(200)	3455N
8-25	2400	WJAC-6 Johnstown, PA	3345R		0700	WHYC-10 WROC-8 CKCO-13 WOKR-13	
	2400	WTAJ-10 Altoona, PA	4342R	9-21	2159	CKNX-8 Wingham, Ontario	4334R
	0135	WWJ-4 Detroit, MI	4544R		2254	WTAJ-10 Altoona, PA	1220R
	0136	WTAE-4 Pittsburgh, PA	3443R	9-26	2300	CKSO-5 Sudbury, Ontario	3222R
	0144	WXYZ-7 Detroit, MI	3455R		2302	WNEW-5 Cleveland, OH	2322R
8-26	2242	WXXI-21 Rochester, NY	3455R		2302	WJAC-6 Johnstown, PA	3232R
	2250	WXON-20 Allen Park, MI	3555N		2304	WHEN-5 CJOH-26 WROC-8 WHEN-10	
	2312	WKBD-50 Detroit, MI	4555R			WOKR-13 CICA-19 CHEX-12	
	2314	WKBF-61 Cleveland, OH	4545R	9-27	2400	WFMJ-21 WKBK-27 WYTV-33 OH	
	2315	WUAB-43 Lorain, OH	3445R		0020	WANE-15 Ft. Wayne, IN	3335R
	2331	WTVS-56 Detroit, MI	3455N		0052	WQED-13 Pittsburgh, PA	4444N
8-27	0047	CJOH-13 Ottawa, Ontario	2222R		0136	WBNS-10 Columbus, OH(275)	4544N
	0157	WNYS-9 Syracuse, NY	2145R		0157	CKCOI-2 Lion's Head, Ont.	4544R
	2159	CKWS-11 Kingston, Ontario	4543R	9-28	1530	CKLW-9 Windsor, Ontario	3443R
	2200	CJOH-26 Deseronto, Ont.	4555R		1820	WNEM-5 Bay City, MI	3233R
	2204	WSYR-3 Syracuse, NY	2342R		1830	WNTV-9 Cadillac, MI	4423R
	2204	WHEN-5 Syracuse, NY	4443R		2000	CKNX-8 CKVR-3 CFPL-10 London	
	2300	CBOT-9 Ottawa, Ont(PQ)	2422N		2300	WCDC-19 N. Adams, MA(300)	3444N
	2307	CJOH-13 Cornwall, Ont.	2121T		2328	WCNY-24 Syracuse, NY(130)	2342N
	2310	CFCE-12 Montreal, PQ	1222T	9-29	0216	CJOH-13 Ottawa, Ontario	3555R
8-28	2059	WAKR-23 Akron, OH(195)	3243R		0250	CBOT-4 Ottawa, Ontario	4555R
	2102	WFMJ-21 Youngstown, OH	2142N			"The following have been positively ID'ed:"	
	2115	WJET-24 WSEE-35 WUAB-43 WQLN-54		5-23	WABG-6 MS	6-4 WLBT-3 MS	6-5 KALB-5 LA
		and WKBF-61 "like semi-locals"		6-5	WBAP-5 TX	6-25 CKCK-2 Regina, Sask.	
	2123	WYTV-33 Youngstown, OH	3345N			"Thanks to Les Puri who solved 2 of these dir-	
	2130	WKBK-27 Youngstown, OH	3545N			ectly...narrowed others, and supplied info."	

EDITOR'S NOTE: Two lengthy reports from Ken Simon and Bob Seybold will have to wait for for the November VUD. Seybold's report includes one of his famous days with August 27-28 being "super days" and September 4-5 being "very good days." "On August 28 alone I logged 179 stations including 100 on UHF." Simon reports on TV aboard airliners in Mexico. Details on both in the December VUD. dp.

# CENTRAL TV DX

Don Ruland  
4448 68th Pl.  
Kenosha, WI  
53140

NOVEMBER 1973 / DX from WI, IL, IN, MI, OH / Next deadline: November 15th

The past month has proved to be one big disappointment as far as Fall tropo is concerned. What is usually one of the most productive periods for extended tropospheric ducting openings in the Great Lakes region looked more like mid-Winter at most monitoring posts the past thirty to forty-five days. There are some exceptional loggings contained in the following reports, but they reflect more of the activity reported in the October Central TV DX Column.

Frank E. Hostetler, R. R. #2, Box 151, Dillonvale, OH 43917 (EDT)

6-29 Es 1900 KARD-3 Wichita	7-13 Tr 0253 WIAC-5 Nashville (430)
2028 KCKT-2 Great Bend	1447 WOUC-44 Cambridge
2100 KCMO-5 Kansas City	7-28 Tr 0510 WCAU-10 Philadelphia
2130 KTVS-3 Sterling	Es 1955 KTBS-3 Shreveport
6-30 Tr 0730-WAIX-19 Cincinnati	7-30 Tr 0857 CKCO-13 Kitchener
0930 WKEF-22 Dayton	7-31 Tr 0900 Lexington UHF's
WLIO-35 Lima	0915 WLKY-32 Louisville (300)
WLKY-32 Louisville	8-1 Tr 0143 CFPL-10 London, Ont.
WCET-48 Cincy	0300 WSWP-9 Grand View, WV
7-2 Tr 0500 KYW-3 Phila. (290)	8-3 Tr 0450 WNBC-4 New York (350)
7-3 Tr 2300 WKMR-38 Morehead	8-4 Es 2130 KTVS-3 Sterling
2315 Toledo UHF's	2145 KTEW-2 Tulsa
2316 WXON-20 Allen Park	8-23 Tr 1218 KPVS-12 C. Girardeau (520)
2325 WNDU-16 S. Bend (300)	Es 1925 CJBR-3 & CHAU-5 Tent.
2328 WEYI-25 Saginaw	8-27 Tr 0220 WGN-9 Chicago (380)
2331 WFLD-32 Chicago (380)	0223 WABO-12 Rhinelander (580)
7-5 Tr 0225 WTTG-5 Washington	0253 WDLH-10 Duluth (740)
7-7 Tr 2157 WGTU-29 Tr. City (400)	0305 WITI-6 Milwaukee (420)
7-8 Tr 0827 WENY-36 Elmira	8-28 Tr 0350 CKVR-3 Barrie (300)
0837 WICZ-40 Binghamton (280)	0745 CKCO-13 Kitchener
0850 Scranton-W. Barre UHF's	8-29 Tr 0310 WABC-7 New York (350)
0855 WRAS-62 Syracuse (320)	9-5 Tr 0210 WWTW-9 Cadillac (380)
7-13 Tr 0240 WLWI-13 Indianapolis	Es 2005 KEZ-3 El Zamarano Tent.

Some real nice catches, Frank, especially on 8-27. See October VUD for other tropo reported around 8-26 to 8-27...ed.

John Robertson, 6065 Gardner Line, Crosswell, MI 48422 (EDT)

8-8 Es 1230 KNOP-2 N. Platte (950)	9-12 Tr 0800 WVUP-10 Sault Ste. Marie
8-21 Tr 2230 WVVO-17 Rockford (325)	9-26 Tr 0829 WGVG-35 Grand Rapids
8-31 Tr 1258 WLS-7 Chicago (270)	9-28 Tr 1810 WXXI-21 Rochester
9-4 Tr 0900 WXXI-21 Rochester (240)	9-29 Tr 0110 CITY-79 Toronto (175)
9-10 Tr 0858 WUTR-20 Utica (375)	2100 WJNL-19 Johnstown (270)

Bill Draeb, Ellis St., R. R. #2, Kewaunee, WI 54216 (CDT)

9-5 Tr 0551 CKCO-2 Warton	9-8 Tr 0655 Lexington UHF's
0716 Youngstown UHF's	0655 WLKY-32 Louisville
1923 Dayton, Cleveland U's	0725 Cincinnati U's
1923 WAKR-23 Akron	0725 WKEF-22 Dayton
9-7 Tr 0705 WKSQ-29 Somerset	9-9 Tr 1643 WUSI-16 Olney
0705 WKHA-35 Hazard, KY	1643 Lexington, Cleveland U's
0705 Lexington U's	1643 WLKY-32 Louisville
0705 WKEF-22 Dayton	1654 WOET-16 Dayton
0705 WKZT-23 Elizabethtown	1654 WNCB-40 Indianapolis
0713 WKON-52 Owenton	1740 Canton, Akron U's
0713 WLKY-32 Louisville	1822 WMUL-33 Huntington
0739 WKPC-15 Louisville	1928 WOUC-44 Cambridge
0826 KDNL-39 St. Louis	1928 WVUU-24 Morgantown
0852 WKMR-38 Morehead	1928 WOUE-20 Athens
9-8 Tr 0552 WHIO-7 Dayton	1928 WHIZ-18 Zanesville
0552 WCPO-9 Cincinnati	1943 Youngstown UHF's
0552 WBNS-10 Columbus	1947 WOSU-34 Columbus
0623 WGEM-10 Quincy	2125 CICA-19 & CHLT-25 Toronto
0623 WMT-3 Cedar Rapids	9-10 Tr 0638 Youngstown, Lexington U's
0630 KGLO-3 Mason City Tent.	0638 WLKY-32 Louisville

Draeb (continued)

9-10 Tr 0654 WKEF-22 Dayton  
2000 KTSB-27 Topeka  
2000 KCBJ-17 Columbia  
2000 Kansas City U's  
2115 KMTC-27 Springfield T  
9-12 Tr 1955 Dayton UHF's  
9-13 Tr 1950 Cleveland, Dayton U's  
9-21 Tr 1800 WKYT-27 Lexington  
1800 Dayton U's  
9-24 Tr 1646 WHMB-40 Indianapolis  
1646 WOUC-44 Cambridge  
1646 Dayton, Cleveland U's  
1920 KDNL-30 St. Louis  
9-25 Tr 1805 Dayton, Cleveland U's  
LS 1808 WKYT-27 Lexington T  
Tr 1808 WKYT-27 Lexington  
1808 WIPB-49 Muncie  
1808 WHMB-40 Indianapolis  
1808 WAKR-23 Akron  
2151 KDNL-30 St. Louis  
9-26 Tr 1818 WKYT-27 & Louisville U's  
2025 Dayton U's  
9-27 Tr 0500 WHIO-7 Dayton  
0500 WCPO-9 Cincinnati  
0500 WENS-10 Columbus  
9-28 Tr 1958 Dayton U's  
1958 WUTV-29 Buffalo  
1958 WKYT-27 Lexington  
1958 Toronto UHF's  
2005 WNPE-16 Watertown T  
2005 WNED-17 Buffalo

"That's all for this month. Unfortunately we didn't catch any new ones this month...will try to do better next report."

Marvin Shults, R. R. #2, Toulon, IL 61483 (CDT)

10-7 Tr 1828 KELO-11 Sioux Falls (392)  
1829 KS00-13 Sioux Falls  
1830 KORN-5 Mitchell, SD (448)  
1830 KUSD-2 Vermillion (388)

"There seemed to be little activity during the period except for the 10-7 opening. Although during first part of October I only had stationary antennae in place. Nothing was received here during the big solar flares of 9-6 to 9-8." Marv, your nice ducting catches 10-7 seems to be the highlight of month! Nice catches!

Paul E. Petosky, Box 140, Munising, MI 49862 (EDT)

9-4 Tr 1830 WNEM-5 Bay City (240)  
Es 2020 unID ch 2-6  
9-8 Es 0144 unID ch 2-6  
Tr 0200 WTMJ-4 Milwaukee (235)  
0205 WOTV-8 Grand Rapids (240)  
9-9 Tr 0030 WNEM-5 Bay City  
0215 CKPR-2 Thunder Bay (190)  
Es 1745 unID ch 2-6  
Tr 2100 CHEAT-1-8 Manitowadge  
2130 CHEAT-13 Geraldton (229)  
2200 CKPR-2 Thunder Bay  
2230 Grand Rapids VHF's  
9-10 Es 2330 unID ch 2-6  
9-16 Es 0130 unID ch 2-6  
9-23 Es 0210 unID ch 2-6

9-28 Tr 2033 WSYE-18 Elmira T  
2033 WCNV-24 Syracuse (575)  
2045 WMHT-17 Schenectady T  
2045 KTCI-17 St. Paul  
2045 KDSD-16 Aberdeen  
2105 WXXI-21 Rochester  
2225 WUTR-20 Utica Tent.  
2240 CKCO-13 Kitchener  
9-29 Tr 0450 CFTO-9 Toronto  
0450 WJW-8 Cleveland  
MS 0501 WCBS-2 New York  
Tr 0512 WKBW-7 Buffalo  
0514 CHCH-11 Hamilton  
2200 Erie, Cleveland UHF's  
2200 Youngstown U's  
2210 WUTV-29 Buffalo  
2216 WJAN-17 Canton  
9-30 Tr 0654 Youngstown, Cleveland U's  
0700 Akron, Canton U's  
1611 WVIZ-25 Cleveland  
1631 WUTV-29 Buffalo  
1631 CICA-19 Toronto T  
1920 Erie UHF's  
2110 WBRB-28 Wilkes-Barre (630)  
2124 WICZ-40 Binghamton (600)  
2124 WSKG-46 Binghamton T  
2127 WBJA-34 Binghamton  
2132 WDAU-22 Scranton (630)  
2132 WENY-36 Elmira (575)  
2237 WUTR-20 Utica Tent.  
10-1 Tr 1256 WUTV-29 Buffalo  
1256 Cleveland U's  
1503 WNPE-16 Watertown T  
10-6 Tr 0929 WDXR-29 Paducah  
1350 Dayton, Louisville U's

10-7 Tr 2200 KELO-11 Sioux Falls  
2200 WHO-13 Des Moines (200)  
2229 KCAU-9 Sioux City (348)  
2230 KTSD-10 Pierre, SD (570)

9-27 Tr 2330 CHEAT-1-8 Manitowadge (199)  
2335 WZZM-13 Grand Rapids  
2340 WJIM-6 Lansing (270)  
9-29 Tr 1415 CKPR-2 Thunder Bay  
2330 WZZM-13 Grand Rapids  
2345 CHEAT-13 Geraldton, Ont.  
9-30 Tr 2000 CHEAT-1-8 Manitowadge  
2015 WZZM-13 Grand Rapids  
10-1 Tr 2030 CHEAT-1-8 & CHEAT-13  
2130 CKPR-2 Thunder Bay  
10-14 Tr 2000 CHEAT-1-8 Manitowadge  
Es 2300 WBRZ-2 Baton Rouge (1130)  
2300 WWL-4 New Orleans (1155)  
2300 unID ch 3

"Installed CM 0070 UHF amp with Belden 8290 transmission line on 7' CM dish on 10-14...ch 29 in Traverse City at 125 miles and nearby translators not seen...would appreciate any suggestions from members."



Don Ruland, 4448 68th Place, Kenosha, WI 53140 (CDT)

9-24 Tr 0458 WSTV-9 Steubenville(410)	10-6 Tr 0542 KFVS-12 C.Girardeau(370)
0540 WHIZ-18 Zanesville (360)	0550 WHAS-11 Louisville (330)
0550 WTAP-15 Parkersburg(400)	0612 KPLR-11 St. Louis (300)
0615 WVIZ-25 Cleveland (330)	0930 WKYT-27 Lexington (360)
0640 WOSU-34 Columbus (320)	10-7 MS 0623 WPTV-5 Palm Beach (1190)
0643 WMUB-14 Oxford (270)	10-11 Tr 0528 WHAS-11 Louisville (330)
0645 Dayton U's (280)	0530 WXIX-19 Cincinnati
1000 WWVU-24 Morgantown (450)	0559 WLKY-32 Louisville
9-28 Tr 0635 WJMN-3 Escanaba (240)	0700 WMUB-14 Oxford (270)
9-29 Tr 0700 WWUP-10 S. Ste. Marie(330)	0725 Lexington U's
0730 WNED-17 Buffalo (460)	0725 WKON-52 Owenton (330)
0730 CPFL-10 London (340)	10-12 Tr 0645 WJMN-3 Escanaba
0900 WENY-36 Elmira (570)	10-14 Tr 0830 WKEF-22 Dayton
9-30 Tr 0524 WLUC-6 Marquette (280)	0900 Lexington UHF's
10-2 MS 0537 WCIV-4 Charleston (810)	10-15 MS 0455 WMAR-2 Baltimore (630)
10-5 Tr 0645 WHEAT-25 Evansville (320)	
0630 WXIX-19 Cincy (300)	"Log at 327....the 9-29 tropo came
0630 WKYT-27 Lexington (360)	in the midst of heavy Lake Michigan
0720 WKON-52 Owenton (330)	squall from low-pressure system."

Many thanks to all reporters these first three months with the column. Your continued support throughout the Winter months will be greatly appreciated...who knows, we may see our Fall tropo in December or January!

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CCCCCCC      7777777 44 44
CC           7777777 44 44
CC      0000 N N V V EEEE N N TTTT II 0000 N N      777 444444444
CC      0 0 NN N V V E-- NN N TT II 0 0 NN N      777 44
CCCCCCC 0000 N NN VV EEEE N NN TT II 0000 N NN      777 44

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Shown below are the two final convention bids for the 1974 convention. These are the only confirmed bids that can be considered. Please send a post card to headquarters (Box 163, Deerfield, IL 60015) with your choice, AS-SOON-AS-POSSIBLE. Also indicate the date that you feel is best. An unofficial count will be in the December VUD, with final word in January.

WTFDA conventions have historically been held in the northeast quarter of the United States. As a city near the geographical center of the United States (and North America) Topeka would be a location that would make it possible for WTFDA members from all corners of the United States and Canada to attend a convention without crossing a continent. Excellent transportation is available into Topeka via railroad, airline and by a major east-west interstate highway (I-70). The convention itself would be held in the studio of a television station located approximately one mile from two motels (one a major national chain; the other a new low-cost clean facility. Ideal as a tourist site, families could incorporate it in their vacation with trips nearby to the Eisenhower Library, Boot Hill in Dodge City, the scenic Flint Hills, and Kansas City with the Truman Library, the Kansas City Royals, Worlds of Fun amusement park, and many other attractions. Kansas isn't all flat--find out next summer in Topeka on top of Signal Hill! Dave Pomeroy, Host.

Lighthouse Point - Fort Lauderdale, Florida. Host: Richard Clark and Ken Simon. The Florida group promises good weather and a convention site close to hotels (\$10-15 per day), shopping center and the beach. A Friday tour of a local station would be planned, along with a barbecue. Other features include DX talks, slides, an auction, tape sessions and gab sessions. Camping facilities are expected. The area is served by several airlines, Greyhound and interstate highways.

# WESTERN FM DX

Editor:  
Mike Dörner, Jr.  
Box 988  
Nome, Alaska 99762

DX FROM THE LAND OF BEGINNING  
AGAIN

Ed. note: I'll continue to edit this column until a replacement is found.  
My Nome address is still valid.

LATE NOTE - NEW  
EDITOR HAS BEEN FOUND!  
DETAILS NEXT MONTH.

Pat Dyer, 5315 Silvertip Drive, San Antonio, Texas 78228 Sept-Oct 1973. CST

Equipment: Hallicrafters SX-62, International Crystal SAX-1 preamp(s); Allied 426; Archer V-100 at 20 feet.

Sept 12

0941 KAMC 94.9 Arlington TX (240 mi) id

Sept 14

0038 KAPM 92.5 Dallas TX (250 mi) rock,

id as "Kay"-FM, i.e., pronouncing "KA" Kay

0054 KBUY-FM 93.9 Dallas (240 mi) nx

0130 KOAX 105.3 Dallas TX (250) el wx

0142 KXOL-FM 99.5 Fort Worth TX (240) auto

gold

0144 KDNT-FM 106.1 Denton TX (275 mi) psas

Sept 15

2101 WFAA-FM 97.9 Dallas, nx

Sept 16

0029 KSCS 96.3 Fort Worth TX, id, c&w

0038 KAMC 95 id "In the middle of metro-

plex"

0043 KNUS 98.7 Dallas TX (250) rock

Sept 19

0029 KBUY-FM, wx from "the world's largest

airport."

0043 KELT 94.5 Harlingen TX (230 mi) test

tones

0117 KLLL-FM 96.3 Lubbock TX (340 mi) local

ads, id, c&w; easily confused with KSCS!

0820 KSCS 96 id

0823 KDLK-FM 94.3 Del Rio TX (140 mi) mor,

wx, id

0830 KWTX-FM 97.5 Waco TX (170 mi) el, nx,

id

0839 KAMC, id in passing

0900 tent KOYL-FM 97.9 Odessa TX (280 mi)

rock

2355 KBUY-FM, nx

So far since I've been using the preamps there

haven't been any Es openings to really see

how they work out with that. So far on trop a few good new catches have been made, with

the New Mexico and west Texas stuff being welcomed. The SX-62 88-108 dial portion is only

about 3/4 inch long, and even with a gear reduction system resulting in a 1 1/2 inch knob tak-

ing 8 revolutions to tune it, things can be touchy.

Local KSIY 90.3 on again in mid-September, running from 1100-2030 GST weekdays. They

must have come up with more funds for the extra hours; in fact, they stayed on until mid-

June (usually off in May), this summer providing CCI for the Es openings. 73.

Fred McCormack, Des Lacs, ND 58733

FM report August-September 1973 CDT

The month of August and September were as unproductive for FM as the rest of the summer was. I have never before noted so little tropo during September as I did this past month. E skip was noted about 90 minutes on 8/5 when the following were logged: WMKY 90.3 s/off at 2306; WNAF 93.1 Indianapolis at 2316 with rock music; CKDS 95.3 Hamilton Ont at 2332; WBKY-91.3 Lexington KY with rock at 2359; WQVO-105.5 Glasgow KY with rock at 0009 (8/5) and ann 24 hour, and finally WMIX 94.1 Mount Vernon, Ill at 0048 with phone number for news tips. The next DX was the morning of 8/18 when Minnesota FMs were heard out to about 480 miles. No new loggings. On 8/25 at 2020 I noted KEHG-107.1 Fos-





# :SOUTHERN FM DX:

Editor: Richard E. Wood  
820 Arlington Ave.  
Baton Rouge LA 70806  
Tel. [504] 343-7771  
Deadline: 13th. of month

## FEATURING FM DX FROM LOUISIANA TO MARYLAND

Harry J. Hayes, 1418 Mount Royal Ave., Apt. 2, Baltimore MD 21217. EDT.

This is my first FM rpt for the South. A lot of my experience here is listening to local stns' formats. Other reporters are right; the band is clogged beyond recognition. wherever there isn't a stn there's a harmonic. However, the educ. band is quite open here, a lot more open than in the Wilkes-Barre PA area. In my 3 wks at this location I haven't hrd what can be called real DX but logged a few in the semi-local range. My college schedule along w/ equal dedication to MM doesn't give me much FM DX time but I try to make the best of it.

9/5 CW 1750 WASH 97.1 Washington [30] not as good as would be expected.  
1800 WWDC 101.1 Wash. [30] As [American Entertainment] nx. Good.  
1810 WFSI 107.9 Annapolis MD [22] "Family Radio" Vy potent signal.  
1820 WMAL 107.3 Wash. Bubbly audio. "107 three FM"  
9/10 GW 1600 WTTT 100.7 Westminster MD [30] Mutual nx, reception good.  
1619 WFRE 99.9 Frederick MD [45] fair.  
1623 WMOD 98.7 Wash. [30] RR, good.  
1628 WYCR 98.5 Hanover PA [60] Platters mx. Good. (What format?REW)  
1710 WHUR 96.3 Wash. [30] SouL. Good.  
1732 WDAC 94.5 Lancaster PA [55] Fair, EL.

9/12 GW 0849 WJMD 94.7 Bethesda MD [35] Fair, EL.  
9/23 GW 0000 WSTW 93.7 Wilmington DE [70] Vy good, EL.  
Equipment is a Zenith Trans-Oceanic Rx w/ a telescoping antenna. 13 other than locals hrd. My apt is at ground level which of course accounts for some of the lousy cx. (Not necessarily. Harry, skip often favors g.l. over heights. Welcome to the column, but please stick to DX; even in a big city, it can be done. I suggest a 150-mi. minimum except for call changes, schedule changes, format or network changes and other local news. REW)

Dr. Richard E. Wood, 820 Arlington Ave., Baton Rouge LA 70806. CLT.

Fall skip - if that's what it is - got off to a remarkably belated start in mid-October; thanks to new member Wiley Kay for the tip. Es Oct. 14;

2010-2102 88.9 XHM Mexico, D.F. 922 whisky spots, EL/instr.; ID "Un Oasis en FM", up & down; unn. short burst; m.u.f. reached unid. briefly  
2015 91.3 Unid. Mexican  
2015 90.5 XEDA? Mexico, D.F.?  
2020-2059 88.5 XHCM Cuernavaca, Mor. 947 MoR/EL, RR mixed Latin/U.S.; ID as "Radio Corazón de Morelia" = XHCM; add this ID to GH Mexican list.  
(all variable, in/out w/ m.u.f.)

Glenn Hauser, 620 N. Husband, Stillwater OK 74074 (5 Sept - 15 Oct 1973) (Gst)

I'm very sorry to see Mike Dörner throw in the towel; some excellent VHF DXing could be done at Nome but on frequencies below the FM band. I urged him to take along a portable TV and a general VHF coverage radio receiver, to be prepared for openings on the Soviet, Korean and Japanese FM band. Temperate zone DX has been hardly more productive:

21 Tr 0735 KBIM- 94.9 NM Roswell NM wx 435	Symphony program; automated?
22 Tr 2234 KWAM 101.1 TN Memphis 395	4 Tr 2304 KTXR 101.5 MO Springfield 220
Ae nx, "FM 101, much more \$ country",	nx, wx, ID, Quad Hour
Ace Thompson Show	MS 2317 ?? 93.7 ?? "Every Thursday at
2239 WMC- 99.7 TN Memphis soulful 395	11, the Best of Bogart"; TV ad?
ads, honky ancrr; "MC FM" jingle, mx	7 Tr 1652 KESD 88.3 SD Brookings weak 570
2255 WEZI 105.9 TN Memphis EL east 395	duct, Mex nx end 1659 w/SBSU credit;
2306 WREG-102.7 TN Memphis "FM 103 395	1700 ID, commentary; 1730 ID
and Radio 60", YL DJ; in KAPG null	10 Gw 2051 KERC- 96.9 OK Enid flood emergen-
2310 KANU 91.5 KS Lawrence nx on 220	cy, then Fire Prevention PSA!
"Blackness Is" program	12 Tr 2340 KPMW 107.9 LA Waterloo ID as 510
2315 WMP5 97.1 TN Memphis cl east 395	"108, KPMW, Waterloo-Cedar Rapids"
2343 "\$97 WMP5, \$ Memphis", Maestro	15 Es 2151 WBFO? 88.7 NY Buffalo? DJ; TV in

Many thanks to all the people who helped with my CCI items! Until the next, 73, Glenn.



# VHF UTILITY DX

Pat Dyer  
5315 Silvertip Drive  
San Antonio, TX 78228  
Deadline: 12th of month

## NOVEMBER 1973

Hank Holbrook, 7211 Chestnut St., Chevy Chase, MD 20015 QSLed; GMT

6-6:	0148, KKJ 460	35.22	Fort Worth, TX (pager; A2 ID; 250 watts)
24:	0128, KGB 476	154.235	Philadelphia, PA (fire; 480 ft; 330 w)
7-1:	1526, FBHSG	129	vic Washington, DC (Air France 012; 707; 25w)
12:	0143, KAA 982	37.10	Mount Pleasant, IA (police)
	0152, KAD 472	37.10	Osceola, IA (sheriff; also Car 20 rcvd)
13:	2221, N228G	133.9	vic Wash., DC (W.R. Grace & Co.; De Haviland 125; twin engine, 10-passenger)
15:	0039, N4323Q	119.7	14 mi s Baltimore (Fetcskd Aircraft Sales & Trans., Inc.; Cessna 172 Skyhawk; 2000 ft)
	1624, N44AC	118.6	20 mi ne Easton, MD (A.C. Forr Corp.; Beech Baron, 2-engine, 6-seat; 2000 feet)
22:	1559, KIC 231	37.10	Greenville, SC (sheriff; 200 w; ant 1000' AAT)
	1608, Car 22	37.10	vic Greenville, SC (sheriff; 30-w; 1/2 lambda whip)
	1640, -	37.26	Saverville, TN (sheriff; also Cars 4&6 hrd)
	2035, KKC 591	39.50	Franklin, LA (sheriff; 330 w; closing 7-31)
8-1:	2242, N710MR	128.7	ov Albany, NY (Montgomery Ward & Co., Inc.; Falcon Fan Jet, 2-engine; 12-seat)
3:	1512, KAA 879	37.10	Adel, IA (sheriff)
4:	1943, N8976W	128.1	44 mi ne Baltimore (Taft Investment Co.; Piper Cherokee 235; single-engine, 4-seat)
	1953, N266US	128.45	(Northwest Airlines 361; Boeing 727-200; 25 w)
	1954, N737N	128.3	NYC (Piedmont Airlines 30; Boeing 737; 25 w)
5:	2348, KAB 817	37.10	Le Mars, IA (sheriff; 100 watts)
6:	0021, KIP 834	37.26	South Fulton, TN (police; 500 watts)

Richard T. Colgan, PO Box 18268 - Serna Station, San Antonio, TX 78218  
Realistic PRO-2; Midland 13-920; Petersen HL-44; A/S Mon-8 @ 40 ft; GMT

2-30:	0209, KJS 876	37.10	Storm Lake, IA (police)
	0301, KAD 472	37.10	Osceola, IA (sheriff)
	0401, KPZ 783	37.10	Onawa, IA (local government)
	0415, KAG 283	39.90	Wahoo, NE (sheriff)
	0422, KJN 908	39.90	Seward, NE (local government)
	1549, KSL 253	37.20	Wynne, AR (police)
	1607, KSB 926	39.50	Shelbyville, IL (sheriff)
31:	2355, KAD 864	39.58	Smith Center, KS (police)
6-1:	0021, KAD 833	39.58	WaKeeney, KS (police)
2:	2050, KAP 321	37.18	Maquoketa, IA (sheriff)
	2106, KAP 259	44.98	Kansas City, KS (state police)
3:	1437, KIB 491	45.06	Ocala, FL (state police)
	1619, KJW 727	42.34	Cactus City, CA (state police)
	1658, KIG 813	37.26	Greeneville, TN (sheriff)
	1910, KJY 643	39.90	Davenport, NE (local government)
	1943, KFB 833	44.98	Hays, KS (state police)
	1951, KGC 712	33.82	Butler, PA (county fire)
4:	0106, KRB 411	45.02	Los Angeles, CA (state police)
	2332, KOA 745	42.88	Portland, OR (state police)
5:	0144, KLR 460	42.02	Eastman, GA (sheriff)
6:	0029, KAP 734	42.58	Van Wert, IA (state police)
8:	2355, KQA 783	39.90	Mt. Clemens, MI (sheriff)
9:	0001, KCL 758	33.86	Westerville, OH (fire)
	0119, KQA 488	42.10	Shinnston, WV (state police)
10:	1648, KAE 695	39.58	Atchi son, KS (sheriff)
12:	1720, KSA 358	39.50	Yorkville, IL (sheriff)
13:	0158, KTN 273	42.12	Commerce, GA (state police)
	0304, KJN 758	42.94	Sober Peak, WY (state police)

My loggings. Hallicrafters SX-62 with International Crystal SAX-1 preamps, Allied A-2586, 30-ft indoor random-wire antenna; F2 (\* F2 backscatter) unless noted; daily peak Latin American MUF noted if 35 MHz or more; CST used; Sp.-Spanish, t-tones, h-harmonic

2-13: 1459, KKV 690 *	23: 1559, KMA 829 *	29: 1702, KMA 829 *
1600, 48.1-Sp.	1602, OK City *	10-2: 1230, R. Canada-h
14: 1325, 36.9-Sp.	1608, 36.9-Sp.	1435, 42.1-Sp.
15: 1600, 45.5-Sp.	1700, 37.1 *	3: 1028, KFJ 891 (Es)
18: 0943, KQC 877 (Es)	24: 1529, KKV 690 *	1029, KSC 645 (Es)
0945, KFJ 891 (Es)	1615, 39.8-Sp.	1034, KQD 313 (Es)
1037, KQC 884 (Es)	1643, OK City *	1610, 36.9-Sp.
1114, KSC 645 (Es)	1730, KMA 829 *	4: 1700, 37.5-t
1136, KQD 607 (Es)	25: 1445, JA2ICE/MM	5: 1400, 36.3-Sp.
20: 1714, KKV 690 *	1720, WB4OQT *	6: 1525, 37.5-t
1730, 35.2-Sp.	1749, KLF 527	7: 1510, 35.7-t
1744, KMA 829 *	1755, KKV 690 *	8: 1500, 36.9-Sp.
1758, OK City *	26: 1705, 35.2-Sp.	9: 1400, 36.9-Sp.
21: 1515, 44.9-Sp.	27: 1405, 46.6-Sp.	10: 1505, 38.7-Sp.
1720, KKV 690 *	28: 1510, 36.9-Sp.	11: 1500, 35.58 *
22: 1530, 35.2-Sp.	1645, OK City *	12: 1335, 36.5-Sp.
23: 1548, KLF 527	29: 1520, 36.3-Sp.	
1556, KKV 690 *	1624, KKV 690 *	

JA2ICE/MM	50.1	0° N - 85° W-a	KQD 313	35.50	Dayton, OH
KFJ 891	35 +	Columbus, OH	KQD 607	35.50	Grand Rapids, MI
KKV 690	35.62	Houston, TX	KSC 645	35.58	Chicago, IL
KLF 527	35.22	Honolulu, HI **	WB4OQT	50.1	Birmingham, AL-a
KMA 829	35.58	San Diego, CA	-	35.58	OK City, OK *
KQC 877	35 +	Cincinnati, OH	R. Can.	30.8x	Sackville, NB-h
KQC 884	35 +	Detroit, MI			

a-amateur; h-h.f. harmonic; rest are tone pagers, except \* voice, \*\* tone messages with voice ID

The principal ionic constituents of the F region are  $O^+$  and  $N^+$  (singly ionized atomic oxygen and nitrogen). The molecular ions (e.g.,  $O_2^+$  in the E region) have been further acted on by solar radiation, with the 910-980 Angstrom (Lyman continuum) and 350-200 Angstrom ranges being the most responsible. Temperatures of 1400-1500° K are found, but this isn't much in terms of calories with so few particles involved.

Unlike Es, the F2 layer shows a wide variety of heights (250-400 km) that depend on time of day, season, solar level, and geomagnetic latitude. Thus angles of incidence (and M factors from the Secant Law) are not as simply arrived. In addition, signal reflection (more properly "refraction") takes place over depths of tens of kilometers compared to the 1 km or so depth found in Es.

All else being equal, DX signals via F-layer propagation will normally be stronger than Es ones since the neutral particle density is much lower (i.e., fewer electron collisions and thus less absorption). This is easily attested to by those who have heard a 35-MHz pager by each mode. (e.g., from here KMD 342, Fresno, CA).

Solar activity control of the F2 layer over a sunspot cycle is such that the typical maximum electron densities may vary from a low of some 500,000 per cc to a value 2 or 3 times that (or, as the case with the very large Cycle 19, a factor of 6 or 7 times it). These higher densities occur at progressively higher altitudes. The limit for F2 MUF's (not counting transequatorial scatter, to be covered later) have ranged up in the 70 MHz region. The Japan-Okinawa region is well noted for such high levels due to a proper combination of geomagnetic and geographic location.

-to be continued-

73, Pat

WA5IYX



# TV QSL CORNER

KEN SIMON  
528 Pilgrim Rd.  
West Palm Beach,  
Fla. 33405

I guess I'll have to depart a little from my plan and I'll just list a few of the better QSLs report to me. As I said before I hope this column helps you get YOUR QSLs...some of the reports have helped me, and I guess that's what it's all about.

I received a real weird one and maybe it isn't even a QSL but...  
VENEZUELA: YVYA Radio Caracas TV. Various channels in various cities. Adm: Baracenas a Rio- Apartado 2057- Caracas...no letter, no explanation. The 'Ingeniera' ( Engineering Dept.?) send me 2 each of R. Caracas decals and 2 R. Caracas TV decals...I have written then about 5 times and the last time I sent the letter air mail-registered with return receipt requested (about \$1.50 in postage!!!) and the return receipt was not returned. ANY COMMENTS???



Anyone who has gotten QSLs from Central and South America who has any ideas to kick around, such as a general form letter in Spanish requesting verification or mailing procedures let us know. I have in the past been using Registered air mail with return receipt requested and have gotten spotty results. I am currently trying sending SASE to Mexican stations. Maybe a member in the border states area can supply Mexican stamps at cost plus return postage?

Also any ideas on French stations?

Maybe we could mimeo or have printed forms of this type. Please comment.

One more digression. As I returned from vacation in Mexico, a package from the CBC was awaiting me. Okay, I got home 1 OCT 73 and the cancel says 27 JUL 73. I guess the USPS doesn't have the only monopoly on slow delivery. Inside was a QSL card for CBMT-6 for a June 13, 1973, reception. Not too bad so far, but also included along with innumerable handouts and folders was a card from CBMT-2 for reception of 1 Aout 1972 and dated 1e 27 juillet, 1973.

## QSLs

A letter from WTFDA member Robert L. Foxworth, who works at WCBS-AM indicates from his preliminary tries to contact people at WCBS-TV that no QSL cards are being issued. (The last QSL I have from WCBS-TV was for reception in 1967.)

After a year and about 5 follow up letters, including a prepared fillin card WCBD in Charleston, S.C., still eludes me.

Also, a few Florida stations will QSL only on prepared fillin cards. They are WINK-11 and WFTV-9. I did manage to get letters from WTVX-34 and WJKS-17 after pestering them with phone calls.

I have been unable in over a year of trying to get any answer from WKAQ-TV in San Juan. Quite a contrast to WIPM-3 and WIPR-6 both QSLing in a week or less.

Does anyone have any other stations for the NON-QSL BLACKLIST or more hopefully any corrections or hints??

So much for rapping...

PANAMA RPC-TV (HOH-21) Corp. Panamena de Radiodifusion SA, Apt. 1795 Panama 1, Rep. de Panama. Brief Spanish letter and RPC coverage map. LLOYD B. O'MEALLY, sub-gereente general.

CANADA CBFT Box 6000 Montreal, PQ. Card showing Maison de Radio-Canada, in French. Initialed 'M N'.  
CBOT Box 3220 Station 'C', Ottawa, Ont. K1Y 1E4. Form letter and standard CBC card. (Mrs.) G. ETHIER, audience services.  
CKVR Box 519 Barrie, Ont. Mimeo form letter. BERT VERWEY, director of engineering.

IOWA WOC 805 Brady St., Davenport 52808. A load of materials and a very nice personal letter. EUGENE E. MCHENRY, assistant to the director of engineering.

MICH WJEK Number 2 Storer Place, Southfield, 48075. A very nice personal letter from WTFDA member RODERICK 'ROD' LUOMA, of the engineering department, a very specific QSL card and a coverage map.

GA WJCL Box 13646 Savannah, 31406. Filled in prepared post card and sent a coverage map. Note on card says station cost \$3 million. Signature looks like 'E F Nighin', VP engineering.

CKLW -Windsor, ONT-9-Mo&A.M QSL card. sig: M. WIEDEMANN

CKWS -Kingston, ONT-11-card

CICA -Toronto, ONT-19-ltr sig: PETER G. BOWERS, gnl. mgr.

CKNX -Wingham, ONT-8-ltr and coverage map

CBWFT-Winnipeg, MAN-3-ltr sig: JAKE MARKS, public relations Adm: Box 160

CBOT -Ottawa, ONT-4-CBC card sig: MRS. G. ETHIER, audience service. Adm: Box 3220 Station C

...all from JR

CFAC -Calgary, ALT-2-ltr sig: BILL McCAMBLY, tech. dir. 20 days.

CKCO-1 -Warton, ONT-2-folder from CKCO, not very specific.

CBWT-2(4), CBWST-10, CBWT-6, CBWFT-3 and CBWT-8...ltr in 3 days from CBC Winnipeg. sig: transmitter supervisor.

CKX -Brandon, MAN. ltr on CKX-AM letterhead signed with initials. 2 weeks

CBWT -Vancouver, B.C. ltr. sig: C.M. WILSON, assistant to B.C. regional engineer.

CKX-1-Birtle-Foxwarren, MAN ltr from CKX sig: LAWRENCE DUBOIS, c.e. 12 days.

...all from JM

CBLT -Toronto, ONT-5-card, ltr sig: MARGARET BEETAM, public relations assist. 11 days.

GJOH -Ottawa, ONT-13-ltr. sig: PAUL W. KUDLA, dir. of op. 3 months.

CKCK -Regina, SASK-2-ltr. sig: LLOYD A. WESTMORELAND, assist. mgr. 10 days.

...all from PS

REMEMBER KEEP THOSE 3 x 5 CARDS IN THE MAIL...PRINT OR TYPE. I'M LOSING MY LIMITED MENTAL FACULTIES TRYING TO READ SOME OF YOUR REALLY LOUSEY HANDWRITING.

PS. IF YOU EVER GET A CARD OR LETTER FROM ME I TYPE OR YOUR IN TROUBLE.

## Contributors:

JR J.J. Roseberg, Downsview, ONT

JM Joseph A. Markewicz, Winnipeg, MAN

PS Peter Sawatzky, Waterloo, ONT

73's de KEN SIMON

528 Pilgrim, West Palm Beach, Fla. 33405

# FM QSL CORNER

Greg Kelley  
108 Archer Street  
Staunton, Virginia 24401

North Carolina: Durham WAFR 90.3, verified my QSL form in 7 days for mint stamp.

Goldsboro WEQR 96.9, verified my QSL form in 6 days for mint stamp.

Greenville WNCT 107.7, verified my QSL form in 11 days for mint stamp.

Roanoke Rapids WPGT 90.1, verified my QSL form in 18 days for mint stamp.

Rocky Mount WFMA 100.7, verified my QSL form in 4 days for mint stamp.

Roxboro WRXO 96.7, verified my QSL form in 6 days for mint stamp.

Tarboro WCPS 104.3, verified my QSL form in 4 days for mint stamp.

New Jersey: New Brunswick WQMR 98.3, verified my postcard in 13 days.

New York: Port Jervis WDLC 96.7, verified my QSL form in 6 days for mint stamp.

Pennsylvania: Carlisle WAYL 102.3, verified my QSL form in 6 days for mint stamp. On the 3rd try.

Hanover WYCR 98.5, blue QSL Card in 4 days for mint stamp.

Hazleton WVCD 97.9, verified my postcard in 9 days on the 3rd try.

Montrose WPEL 96.5, verified my QSL form in 6 days.

Pottsville WAVT 101.9, verified my postcard in 9 days on the 3rd try.

Shamokin WISL 95.3, verified my QSL form in 6 days for mint stamp.

Waynesboro WAYZ 101.5, verified my postcard in 7 days on the 3rd try.

Virginia: Newport News WGH 97.3, verified my QSL form in 13 days for mint stamp.

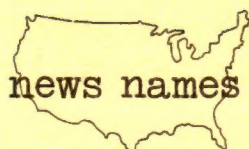
South Boston WJLC 96.7, sent QSL Letter in 6 days for mint stamp.

## VAFI (A recap of what it means and how it's used.)

Video (V)	Audio (A)	Fading (F)	Interference (I)
No signal 0	No signal 0	Auroral flutter 0	Loss of signal 0
Just detectable 1	Just detectable 1	Deep to fast 1	Extreme 1
Heavy snow 2	Poor 2	Slow deep 2	Heavy 2
Moderate snow 3	Fair 3	Moderate 3	Moderate 3
Light snow 4	Good 4	Light 4	Light 4
Snow free 5	Excellent 5	None 5	None 5

VAFI is a system for detailed reporting of signal quality in a minimum of space. A typical DX column VAFI report would be similar to the following: 4334N540. The first four numbers read directly off the chart above. "N" indicates the station is a new logging. "R" for relog and "T" for tentative are alternates. The last numbers indicate mileage from DXer to DX station.





EVEN MORE NEWSCAST NAMES to aid you with CGI problems. Information in this list does not duplicate, but in some cases contradicts (\*) previous listings, which see: VUD, August, page 34; October, page 12. Additional names not appearing in any of these may be sent to Glenn Hauser, 620 N. Husband, Stillwater, OK 74074. We are indebted to William R. Hale who supplies the bulk of info this time, gleaned from his 81 TV Guides (W); other contributors are Ricky Glasgow (R) and your compiler (G).

2 KBOI Eyewitness News	R	6 WTVN Total News	W	11 KGBY Northwest Report	W
WJEK Eyewitness News	W	WBRC The Night News (10)	W	12 WIGU Hotline News	W
KHON Eyewitness News	W	WOC News 6	W	WWBT The Scene Tonight	W
WTWO Good News 2	W	KOTV Hour Thing	G	WJRT Eyewitness News	W
KWGN *20/20 Nightly Big News	W	7 WXYZ Action News	W	WISN Eyewitness News	W
WKTU TV2 News	W	WNAC The News Center	W	KXMB Round-Up of the News	W
WGR Ron Hunter Report	W	WJHG 5/6/10 O'Clock Report	W	KXII 10 O'Clock Final	W
KPRC Big 2 News	W	KAYS Bob Chaffin News	W	KBMT KBMT 12 NEWS	W
3 WEAR Eyewitness News	W	WKEW Eyewitness News	W	WJTV Info 12	R
WLBT 6 PM Report	R	WMAL Total News 7	W	KSLA Eyewitness News	R
Ch 3 10 O'Clock News	R	KGO 7 Newscene	W	13 WDTB Newscope 13	W
WBTU The Scene Tonight	R	KTEC Newsday	W	WLVI Eyewitness News	W
WBTU Early Report (6pm)	W	KVII Pro News	W	WHBQ Eyewitness News	W
KTES Report News	R	8 WISH Big News (+Final, 11)	W	WOKR Eyewitness News	W
4 KVOA Eyewitness News	R	KOLO Eyewitness News	W	WMAZ Pulse (6 pm)	W
KARK Eyewitness News	W	KTUL *News Eight	GW	11th Hour Report	W
WBZ Eyewitness News	W	KFMB Newsroom	W	KVAL Northwest Report	W
WWL Eyewitness News	W	WCHS NewsDay	W	WLOX WLOX TV News	R
WCEI Night Beat (10pm)	W	WQAD News Scope	W	14 KMEG Newsbeat	W
WTYY 6/10 O'Clock Report	R	9 KBTU The Better News	W	WFIE NewsLens Professionals	W
KGBT Four Star Final (10)	W	WTOP Eyewitness News	W	15 WANE The Big News (6 pm)	W
KGNC Newswatch	W	WTVV News Scope	R	Big News Final (11)	W
WLWC DeMoss Report	W	CFTO Fraser Kelly Report (6)	W	16 WAPT Television 16 News	R
WBEN First Team News	W	Night Beat (11:20)	R	17 KJTV The News Tonight	W
KPIC Northwest Report	W	WTVM 6 PM News Hour	W	WAND Eyewitness News	W
5 KOCO The News on 5	W	News Final (11:30)	W	19 WRAU NewsScene Newsteam	W
WCYB 11 O'Clock News	W	G10 WLCY Eyewitness News	W	21 WPTA Eyewitness News	W
KSTP The World Today	W	WTHI 6/11 O'Clock Report	W	25 WEEK TV25 6/10:00 Report	W
WPTZ Eyewitness News	W	KBIM Frank Tracy News	W	26 WCIU Información 26	W
WFRV Eyewitness News	W	KOOL KOOLNEWS	W	27 WKYT Eyewitness News	W
WMAQ Newsfive	W	WHEC Rochester Reports	G	KTSB Nightly News	G
WABI The Journal	W	KAKE The Scene (Tonight)	W	28 WERE Eyewitness News	W
KRGV *6/10 PM Report	W	KZTV Ten Star News	R	31 WMED The News with Nichols	W
6 CHAT Probe	W	W11 WTKO Night Owl News (11)	R	33 WRBT 33NEWS	W
WTVR News/90	W	KKTV *The 6 O'Clock Report	W	40 WLIT TV40 Newswatch	W
WGSN Eyewitness News	W	*News Eleven (530, 10)	W	###	
WDSM Eyewitness News	W	WPIX News Plus (10:30)	W		
		KHOU News Watch 11	W		



The VHF-UHF DIGEST is the monthly publication of the Worldwide TV-FM DX Association. WTFDA is a nonprofit organization and a member club in the Association of North American Radio Clubs.

Dues: US and Canada: \$9. Mailed by first class mail.

VUD Back Issues Available:

(1973) May, June, July, August, September, October  
All back issues are 75¢ each, by special book rate or 1st class.

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Latest edition to be released shortly. Now bigger than ever!

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THIRD CLASS